Directions (1-7): Read the following passage and answer the following questions. Some words are highlighted to help you answer some of the questions.

The state of India's economy is deeply worrying. By now, the facts are evident to all nominal GDP growth is at a 15-year low; unemployment is at a 45-year high; household consumption is at a four-decade low; bad loans in banks are at an all-time high; growth in electricity generation is at a 15-year low — the list of highs and lows is long and **perturbing (A)**. But the state of the economy is worrying not because of these disturbing statistics. These are mere manifestations of a deeper underlying_____**(B)** that plagues the nation's economy today. A nation's state of the economy is also a function and reflection of the state of its society. The functioning of any economy is the result of the combined set of exchanges and social interactions among its people and institutions. **(C)**Mutual **foster (1)** and self-confidence are the **bedrock(2)** of such social **transactions(3)** among people that **trust (4)** economic growth. Our social fabric of trust and confidence is now torn and ruptured.

There is a palpable climate of fear in our society today. Many industrialists tell me that they live in fear of harassment by government authorities. Bankers are reluctant to make new loans, for fear of retribution. Entrepreneurs are hesitant to put up fresh projects, for fear of failure attributed to ulterior motives. Technology start-ups, an important new engine of economic growth and jobs, _____**(D)** _. Policymakers in government and other institutions are scared to speak the truth or engage in intellectually honest policy discussions. There is profound fear and distrust among people who act as agents of economic growth. When there is such distrust, it adversely impacts economic transactions in a society. When transactions among people and institutions are negatively impacted, it leads to a slowdown of economic activity, and eventually,_____**(E)** _____ _. This perilous state of fear, distrust and lack of confidence among citizens is a fundamental reason for our sharp economic slowdown.

There is an air of helplessness too. Aggrieved citizens find nowhere to go to air their grievances. **(F)**Public trust in independent institutions, such as the media, judiciary, regulatory authorities and investigative agencies have been severely eroded. With the erosion of trust, there is a lack of a support system for people to seek refuge against unlawful tax harassment or unfair regulations. **(G)** This makes **undertaking (1)** lose their risk **appetite(2)** even further for **entrepreneurs (3)** new projects and **creating(4)** jobs. This toxic combination of deep distrust, pervasive fear and a sense of
hopelessness in our society is stifling economic activity, and hence,
economic growth.

Q1. Which of the following option represent pair of synonym and antonym respectively for the word marked as **(A)** in the given passage?
(a) Console, Attenuate
(b) Intrigue, Gratify
(c) Disquieting, Assuage
(d) Enervate, Incarcerate
(e) None of these.

Q2. Which of the following words given in the options should come at the place marked as **(B)** in the above passage to make it grammatically correct and contextually meaningful? Also, the word should fill in the two sentences given below to make them contextually correct and meaningful.
(I) Trickier to identify by far is systemic institutional _____, although suspicions are that Cricket South Africa (CSA) is now an organisation flirting with a nervous breakdown
(II) Doctors' strike was the straw that finally broke the camel's back – the outcome of a deep _____that unfortunately has still not been corrected in the present budgetary allocation for health.
(a) Frivolous
(b) Malaise
(c) Arduous
(d) Benevolence
(e) None of these.

Q3. The sentence given in **(C)** has four words given in bold. Amongst the given bold words which of the followings must interchange to make the sentence grammatically and contextually correct and meaningful?
(a) (2)-(4)
(b) (1)-(2)
(c) (3)-(4)
(d) (1)-(4)
(e) (2)-(3)

Q4. Select the appropriate phrase for the blank marked as **(D)** which can make the given sentence contextually as well as grammatically correct.
(a) been stitched and knitted together to enthuse trust and confidence.
(b) to garner an elephant's share of the export opportunity
(c) it is prudent to act quickly to restoring consumption demand
(d) seem to live under a shadow of constant surveillance and deep suspicion
(e) None of these.

Q5. Select the appropriate filler for the blank marked as **(E)** in the given passage.
(i) Accretion
(ii) Stagnation
(iii) Appurtenance
(a) Only (ii)
(b) Only (iii)
(c) Both (i) and (iii)
(d) Both (ii) and (iii)
(e) None of these.

Q6. In the above passage, a sentence **(F)** is given in Italics. There may or may not be an error in one part of the sentence. Choose the part which has an error in it as your answer. If there is no error, then choose option (e) as your answer.
(a) Public trust in independent institutions,
(b) such as the media, judiciary, regulatory authorities
(c) and investigative agencies
(d) have been severely eroded
(e) No error.

Q7. The sentence given in **(G)** has four words given in bold. Amongst the given bold words which of the following must interchange to make the sentence grammatically and contextually correct and meaningful?
(a) (2)-(4)
(b) (1)-(2)
(c) (3)-(4)
(d) (1)-(4)
(e) (1)-(3)

Directions (8-12): Read the following passage and answer the following questions. Some words are highlighted to help you answer some of the questions.

Until recently most astronomers believed that the space between the galaxies in our universe was a near-perfect vacuum. This orthodox view of the universe is now being challenged by astronomers who believe that a heavy "rain" of gas is falling into many galaxies from the supposedly empty space around them. The gas apparently condenses into a collection of small stars, each a little larger than the planet Jupiter. These stars vastly outnumber the other stars in a given galaxy. The amount of "intergalactic rainfall" into some of these galaxies has been enough to double their mass in the time since they formed. Scientists have begun to suspect that this intergalactic gas is probably a mixture of gases left over from the "big bang" when the galaxies were formed and gas was forced out of galaxies by supernova explosions.
It is well known that when gas is cooled at a constant pressure its volume decreases. Thus, the physicist Fabian reasoned that as intergalactic gas cools, the cooler gas shrinks inward toward the center of the galaxy. Meanwhile its place is taken by hotter intergalactic gas from farther out on the edge of the galaxy, which cools as it is compressed and flows into the galaxy. The net result is a continuous flow of gas, starting as hot gases in intergalactic space and ending as a drizzle of cool gas called a "cooling flow," _____ into the central galaxy.
A fairly heretical idea in the 1970's, the cooling-flow theory gained support when Fabian observed a cluster of galaxies in the constellation Perseus and found the central galaxy, NGC 1275, to be a strange-looking object with irregular, thin strands of gas radiating from it. According to previous speculation, these strands were gases that had been blown out by an explosion in the galaxy. Fabian, however, disagreed. Because the strands of gas radiating from NGC 1275 are visible in optical photographs, Fabian suggested that such strands consisted not of gas blown out of the galaxy but of cooling flows of gas streaming inward. He noted that the wavelengths of the radiation emitted by a gas would changes as the gas cooled, so that as the gas flowed into the galaxy and became cooler, it would emit not x-rays, but visible light, like that which was captured in the photographs. Fabian's hypothesis was supported by Canizares' determination in 1982 that most of the gas in the Perseus cluster was at a temperature of 80 million degrees Kelvin, whereas the gas immediately surrounding NGC 1275 was at one-tenth this temperature.

Q8. Which of the following is not in line with Fabians' observations?
(a) Temperature at the center of the galaxy is comparatively less than that of Perseus cluster
(b) Intergalactic gas on cooling would emit visible light instead of x-rays
(c) There is continuous flow of gas toward the center of galaxy from different galaxies
(d) Both (a) and (c)
(e) None of these.

Q9. Which of the following best define the purpose of the passage?
(a) Differentiating between different approaches in analyzing certain phenomenon occurring in galaxies
(b) Providing counter argument against primeval assumptions about space
(c) Establishing universality of Laws of thermodynamics
(d) Both (b) and (c)
(e) None of these.

Q10. Select the appropriate filler for the blank given in the passage.
(a) Impending
(b) Rejuvenating
(c) Plucking
(d) Falling
(e) None of these.

Q11. Which of the following statement(s) is/are true with respect to given passage?
(a) There is continuous increase in the mass of the planets since their formation
(b) Galaxies are continuously bombarded with gases originated during supernova
(c) The size of the condensed gases is comparatively large than many of the planets in the solar system
(d) Both (a) and (b)
(e) None of these.

Q12. As per the passage 'intergalactic rainfall' is defined as
(a) Movement of gases from outer region of galaxies to the center.
(b) Condensation of gases into collection of small stars
(c) Expulsion of gases from galaxies due to supernova explosions
(d) change in the wavelength of the gase during their cooling
(e) None of these.

Directions (13-19): Read the given passage carefully and answer the questions following the passage.

The Chinese market accounted for a third of worldwide smartphone sales in 2016, with about half a billion units sold. However, the size of this market didn't offer much protection to market leaders. As recently as last year, newcomers were still muscling in and snatching market share from under the noses of more well known, established brands. In the early stages of this market's development, after the launch of the iPhone in 2007, Apple and Samsung dominated. Then in 2015, two Chinese brands, Xiaomi and Huawei, crashed on to the scene and changed the story. By the end of that year, they had pushed Apple into third position and squeezed Samsung out of the top five. Just one year later, OPPO and VIVO (together known as OV), two unfamiliar Chinese brands that had nevertheless been cultivating the market for years, overturned the ranking again. OV took first and third positions in 2016, pushing Apple to fourth place. Samsung's market share shrank to just one third of that of the new market leader OPPO.

And what happened to Xiaomi, briefly the market leader? Well, its business model was built around outsourcing most of its value chain and managing only retail, customer experience and brand image. It sold its products exclusively online and offered extremely competitive prices. However, the strategy later proved to be a huge drawback. In 2016, the Chinese mobile market was booming, and every player was seeking to expand production to meet growing demand. This resulted in a **shortage** of key components and fierce competition among brands to obtain them. The fully outsourced model meant Xiaomi had less bargaining power than its competitors. Because of a shortage of processors and DRAM, Xiaomi suffered a shipment shortage of 8 million units and its market share plunged.

In this market, it would seem, the business model really matters. OV have worked hard on cultivating fruitful and **respectful** relationships with suppliers including Sony for cameras, Samsung for displays and Qualcomm for processors. It's well known in supplier circles, for example, that OV will pay for suppliers' dinner and offer free accommodation to technical staff sent from suppliers. The support from high quality global suppliers not only helps OV to implement their product strategy but also secures delivery support for OV during the peak season, when component shortages are common with competitors. This helps OV overcome their smaller supplier penetration compared with the global volumes of the competition. Then let's move on to their manufacturing. Unlike Xiaomi or Apple, OV built up their manufacturing capability from the outset. In fact, OV source every one of their mobile phones from their own factories. There are a number of advantages to this strategy. It ensures product quality, planning and capacity control. Plus, by developing and investing in their own efficient manufacturing, OV are better equipped to respond to increased demand without competing for precious capacity at outsourcers.

Next, there's the distribution strategy. OV, for now, appear happy to let the other big players battle it out for the sophisticated city consumers' Renminbi. OV, on the other hand, target the smaller cities, towns and rural areas, so-called 'tier 3 and 4' locations. They back this up with sponsorship deals with pop stars, soccer clubs and TV dramas to appeal to this market. The smartphones themselves are sleek, simple and fast-charging. And most of them are sold via an enviably wide-reaching network of 200,000 reseller retail stores – bigger than that of any of their competitors – supported by warehouses at a local level. And finally, OV are willing to share profits with their distributors, forming a foundation for a long-term cooperation. The rebate that OV provides to distributors is very high for the industry, ranging from 5% to 10%. This is a powerful motivator for distributors and retailers to promote OV devices.

However, OV's strategy of building up _____(I)_____production capacities poses risks. OV has already doubled their businesses in just one year; but such dramatic growth in the future could challenge their 100% in-house production strategy. This could mean they need to collaborate with outsourcers. Furthermore, should business growth slow down or decline, the cost of investing in production overcapacity might be difficult to absorb.

Q13. How has nurturing a constructive relationship with the suppliers, helped OV?
(a) OV entered the market after partnership with some of the leading suppliers and distributors of Indian market
(b) OV could have assured delivery even when there exists component shortage due to high demands
(c) OV could easily subdue smaller supplier penetration
(d) both (b) and (c)
(e) all of these

Q14. Which of the following has been the approach followed by OV to attain a wider consumer base?
(a) they have introduced flash sales to market their affordable but high quality smartphones
(b) they do not target to expand their reach within larger and more advanced cities.
(c) they only introduced the smartphones which had good quality along with mid-range pricing
(d) OV markets its products by offering sponsorship to people with eminence in various fields
(e) both (b) and (d)

Q15. How has the coming in of the new smartphone manufacturers affected the position of trailblazers within the market?
(a) even after the new comers entering the marketing the established manufacturers had a stable demand, due to their superior quality of the product
(b) they have provided provide flagship-level mobiles with low price with the latest features which made the established companies spend higher on their technological setup.
(c) newer manufacturers have grabbed the market opportunities and have shaken domination of established brands
(d) newer smartphones were introduced at extremely lower rates which led to shunning off of the prominent smartphone brands
(e) none of these

Q16. What have been the consequences faced by Xiaomi against its strategy of outsourcing most of its value chain?
(i) The company had to compromise with the bargaining power which its competitors would otherwise have.
(ii) The company had to undergo shortage of supply of major components
(iii) They would produce limited quantity of smart phones, that made it difficult for the company to have a wider reach
(a) only (ii)
(b) both (i) & (ii)
(c) both (ii) and (iii)
(d) all (i), (ii), (iii)
(e) none of these

Q17. Which of the following has meaning opposite to **SHORTAGE**, as highlighted in the above passage?
(a) penitent
(b) remorseful
(c) quandary
(d) profusion
(e) enigmatic

Q18. Which of the following words is similar to "**RESPECTFUL",** as
highlighted in the above passage?
(a) indiscretion
(b) folly
(c) deferential
(d) lunacy
(e) frenzy

Q19. Which of the following can fill in the blank (I), to make the statement grammatically and contextually correct. Also, the word must fit in the sentences given below, following the question.

(A) Daniel Matuszewski, former head of Circle Trade, an over-the-counter (OTC) trading desk of cryptocurrency firm Circle, has jointly set up a new_____trading firm called CMS Holdings.

(B) Two former executives at crypto finance firm Circle and former DRW executive jointly founded _____crypto trading firm CMS Holdings.

(a) incertitude
(b) suspicious
(c) dubiety
(d) proprietary
(e) qualm

Directions (20-25): In each of the questions given below four words are given in bold. These four words may or may not be in their correct position. The sentence is then followed by options with the correct combination of words that should replace each other in order to make the sentence grammatically and contextually correct. Find the correct combination of the words that replace each other. If the sentence is correct as it then select option (e) as your choice.

Q20. The longer the (A)**deployed** lasts, the (B)**longer** the soldiers remain (C)**clampdown** on trigger fingers, the more the accretion of belligerence (D)**continues** on either side of the LoC.

(a) B-D
(b) A-C
(c) A-D
(d) B-D
(e) no replacement required

Q21. The hope is once all the (A) **grandstanding** is done, saner counsel will (B)**prevail** and steps taken to guide both Kashmir and the (C)**bilateral** relations with Pakistan to a space where they can be better (D)**managed** bilaterally.

(a) A-B & C-D
(b) A-C & B-D
(c) A-D
(d) C-D
(e) no replacement required

Q22. Civil (A) **policies** groups and (B) **critical** of Kashmiris, Dalits and Muslims, who have been (C) **groups** of Mr. Trump, also called out the Modi government for its (D) **rights**.

(a) A-C
(b) A-D & B-C
(c) B-D & A-C
(d) C-D
(e) no replacement required

Q23. Despite what Houston (A) **diplomacy** for the two leaders, a line may have been (B) **crossed** in the mixing of partisan (C) **national** politics with international (D) **achieved**.
(a) B-D
(b) A-C
(c) A-B
(d) A-D
(e) no replacement required

Q24. Mr. Conte has been (A) **reported** to have (B) **inexperience** from his relative political (C) **emerged** during the recent crisis, confronting Mr. Salvini's sectarian agenda and (D) **enabling** the coalition to close ranks.
(a) A-D & B-C
(b) B-C
(c) A-C & B-D
(d) C-D
(e) no replacement required

Direction (25-32): In the questions given below, there is a sentence in which one part is given in bold. The part given in bold may or may not be grammatically correct. Choose the best alternative among the four given which can replace the part in bold to make the sentence grammatically correct. If the part given in bold is already correct and does not require any replacement, choose option (e), i.e. "No replacement required" as your answer.

Q25. The truck driver, a 25-year-old man from Northern Ireland, **has arrested on suspicion** of murder.
(a) have arrested on suspicion
(b) has been arrested on suspicion
(c) has arrested over suspicion
(d) has been arrested at suspicion
(e) No replacement required

Q26. People will be able to get loans for them and the **government can carried out** development works there.
(a) government could carried out
(b) government can carried forward
(c) government can carry out
(d) government carried out
(e) No replacement required

Q27. To resolve the conflict between two judgments and provide an authoritative understanding of Section 24, a five-judge Bench was constituted last week
(a) Resolving the conflict over
(b) Resolving the conflict between
(c) Resolve the conflict between
(d) Resolution the conflict between
(e) No replacement required

Q28. Delhi's AQI worsened slightly on Wednesday and stayed in the **"poor" category, and the high wind** speed is keeping the pollution from increasing further.
(a) "poor" category, and the higher wind
(b) "poor" category, but the high wind
(c) "poor" category, and the high winds
(d) "poor" category, and the higher winds
(e) No replacement required

Q29. Looking at the current forecast of weather parameters in SAFAR model simulations, air quality during **Diwali had been likely to be** not as bad as last year.
(a) Diwali is likely to be
(b) Diwali have been likely to be
(c) Diwali is likely have been
(d) Diwali is likely to had been
(e) No replacement required

Q30. The surface as well as **boundary layer winds is forecast** to change direction to easterly by Thursday afternoon.
(a) boundary layer winds is forecasted
(b) boundary layer winds is forecasting
(c) boundary layer winds has been forecast
(d) boundary layer winds are forecast
(e) No replacement required

Q31. Student activists of ABVP and DUSU held **protested over the proposed** construction of a 39-storey building at North Campus.
(a) protest over the proposing
(b) protesting over the proposed
(c) protests over the proposal
(d) protest over the proposed
(e) No replacement required

Q32. The **police said they having received** a complaint from a group of students alleging that they were assaulted.
(a) police said they have received
(b) police said they have been received
(c) police said it has received
(d) police said they had been receiving
(e) No replacement required

Directions (33-37): Read each of the following sentences to find out if there is any grammatical error in it. The error, if any, will be in one part of the sentence. The number of this part is your answer. If there is no error in the statement, then mark option (e) as your answer choice.

Q33. I suppose (A) /there are some people (B) /whom would consider it (C) /unthinkable to keep it in operation (D).
(a) A
(b) B
(c) C
(d) D
(e) None of these.

Q34. Let's look at a hypothetical (A)/situation in which Carol (B)/, a recovering cocaine addict (C)/, gets invited for a party (D).
(a) A
(b) B
(c) C
(d) D
(e) None of these.

Q35. Ayush and his friend (A) / were walking towards (B) / the airport when (C) /they met his common friend (D)./
(a) A
(b) B
(c) C
(d) D
(e) None of these.

Q36. The demand of the people's (A) /forum that the prices of important (B) /commodities to lower down will (C) /soon be reviewed by the government (D) /.
(a) A
(b) B
(c) C
(d) D
(e) None of these.

Q37. The worried man made (A) / a second thoroughly search (B) /of all his pockets, again (C)/including the grocery bag (D).
(a) A
(b) B
(c) C
(d) D
(e) None of these.

Directions (38-45): In the following questions two columns are given containing three sentences/phrases each. In first column, sentences/phrases are A, B and C and in the second column the sentences/phrases are D, E and F. A sentence/phrase from the first column may or may not connect with another sentence/phrase from the second column to make a grammatically and contextually correct sentence. Each question has five options which display the sequence(s) in which the sentences/phrases can be joined to form a grammatically and contextually correct sentence. Choose the pair(s) which make(s) a grammatically meaningful sentence.

Q38. Column (1)
(A) Tourists and the Amarnath pilgrims were directed to
(B) Census 2021 is unlikely to collect "caste wise" data
(C) Muslim and Dalit organisations staged protests
Column (2)
(D) People sometimes confused caste with gotra
(E) against the controversial legislation criminalising triple talaq
(F) suggest specific threat to the yatra
(a) C-F and A-D
(b) B-F
(c) A-F
(d) C-E
(e) B-D and A-F

Q39. Column (1)
(A) State Bank of India (SBI), the country's largest lender
(B) A spate of reforms undertaken by the government has led to
(C) India has failed to capitalise on opportunities
Column (2)
(D) vast range of public sector for private
(E) challenging times in terms of investment
(F) reported a net profit of ₹2,312 crore for the April-June quarter
(a) C-F and A-D
(b) B-F
(c) A-F
(d) C-E
(e) B-D and A-F

Q40. Column (1)
(A) Equitas Holdings Ltd. (EHL) has sought extension
(B) The Reserve Bank of India (RBI) has imposed a
(C) The RBI has come out with guidelines on
Column (2)
(D) approved the composite scheme of arrangement.
(E) director can be appointed for three years
(F) a monetary penalty on eight banks for violating various norms.

(a) C-F and A-D
(b) B-F
(c) A-F
(d) C-E
(e) B-D and A-F

Directions (41-45): Given sentences are not in their exact position. Rearrange them to make a coherent paragraph and then answer the questions given below.
(A) In the 2014-2016 period, of the 21 large States, only two — Kerala and Chhattisgarh — had an SRB of above 950 girls per 1000 boys.
(B) Female foeticide continues to increase at an alarming rate, as per the Sample Registration System data
(C) Thus at present, at least 5% of girls are 'eliminated' before they are born, despite the promises of the Beti Bachao Beti Padhao scheme.
(D) As a result the sex ratio at birth (SRB) has been dropping continuously since Census 2011,
(E) This has come down from 909 girls per thousand boys in 2013 to 896 girls in 2017,

Q41. Which of the following should be the **FIRST** sentence after the rearrangement?
(a) A
(b) B
(c) C
(d) D
(e) E

Q42. Which of the following should be the **FOURTH** sentence after the rearrangement?
(a) A
(b) B
(c) C
(d) D
(e) E

Q43. Which of the following should be the **SECOND** sentence after the rearrangement?
(a) A
(b) B
(c) C
(d) D
(e) E

Q44. Which of the following should be the **THIRD** sentence after the rearrangement?
(a) A
(b) B
(c) C
(d) D
(e) E

Q45. Which of the following should be the **LAST** sentence after the rearrangement?
(a) A
(b) B
(c) C
(d) D
(e) E

Directions (46-50): In the following questions, there are two statements with a missing word in each. There are three words given below each question which can be used to fill up the blanks with the same word in each sentence to make a meaningful sentence. Choose the correct alternative among the five options given below which can fill the given blank to make a meaningful sentence. If all three words are feasible, choose option (e) i.e., "All (I), (II) and (III)" as your answer.

Q46.
(1) The stark statistics jump out at anyone trying to understand why _____ infrastructure is so important in the world
(2) The online networks formed by hate groups may not be as _____ as previously thought but still receive huge funding.
(I) strong
(II) building
(III) resilient
(a) Only (I)
(b) Only (II)
(c) Both (II) and (III)
(d) Both (I) and (III)
(e) All (I), (II) and (III)

Q47.
(1) The researchers developed a_____model that allowed them to track online hate and study how people adapted to bans since 2017
(2) According to the state-run news service China Daily, the telecom major Huawei is planning to come up with its_____ service called Map Kit.
(I) scholar
(II) mapping
(III) reduced
(a) Only (I)
(b) Only (II)
(c) Both (II) and (III)
(d) Both (I) and (II)
(e) All (I), (II) and (III)

Q48.
(1) India's proposal for a more active role by the United Nations in the field of applications of space technology to developing countries met with _____.
(2) A section of conservationists and Badaga community leaders voiced its_____to the plan to shift the horse racing track in Udhagamandalam to Nedugula near Kotagiri
(I) opposition
(II) gathering
(III) support
(a) Only (I)
(b) Only (II)
(c) Both (II) and (III)
(d) Both (I) and (III)
(e) All (I), (II) and (III)

Q49.
(1) In the_____of our tropical climate, every summer seems the worst ever.
(2) Temperature _____, drought and heavy precipitation account for 18 to 43 percent of variations in global crop yields.
(I) turbulent
(II) unification
(III) extremes
(a) Only (I)
(b) Only (II)
(c) Only (III)
(d) Both (I) and (II)
(e) All (I), (II) and (III)

Q50.
(1) For the many others who want the present government _____, the coming elections are about the exact opposite.
(2) A cover of one of the vases was found _____ and lying on the bottom of the stone coffer.
(I) remove
(II) dislodged
(III) constructed
(a) Only (I)
(b) Only (II)
(c) Both (II) and (III)
(d) Both (I) and (II)
(e) All (I), (II) and (III)

Directions (51-55): Study the following information carefully and answer the questions given below-

Six persons are living on different floors of six storey building. Ground floor is numbered as 1st floor and just above the floor is numbered as 2nd floor and so on till the topmost floor is numbered as 6th floor. They born in different countries.
K was born in Vienna and lives on an odd numbered floor. P lives on the topmost floor. The number of persons live above K is same live below R who was born in Wels. T was born just after the one who was born in Wels. Q lives three floors above the one who was born in Salzburg. M was born in Graz. The one who was born in Innsbruck lives above the one who was born in Klagenfurt.

Q51. Who among the following lives on the 4th floor?
(a) Q
(b) The one who was born in Wels
(c) M
(d) The one who was born in Graz
(e) Both (a) and (d)

Q52. How many persons live between the one who were born in Vienna and Salzburg?
(a) Three
(b) Four
(c) None
(d) Two
(e) One

Q53. Four of the following five are alike in a certain way and so form a group. Find the one who does not belong to that group?
(a) P- Vienna
(b) R-Salzburg
(c) T- Salzburg
(d) M- Klagenfurt
(e) K- Innsbruck

Q54. Who among the following lives on the bottom most floor?
(a) M
(b) The one who was born in Innsbruck
(c) The one who was born in Klagenfurt
(d) R
(e) T

Q55. K was live on the____floor.
(a) 3rd
(b) 4th
(c) 1st
(d) 6th
(e) None of these

Directions (56-59): A word and number arrangement machine when given an input line of words and numbers rearranges them following a particular rule. The following is an illustration of input and rearrangement.

Input: 62 89 Water Drink 45 Juice 22 Daily

Step I: 22 62 water drink 45 juice daily 89

Step II: 22 45 water drink juice daily 62 89

Step III: 22 45 daily water drink juice 62 89

Step IV: 22 45 daily drink water juice 62 89

Step V: 22 45 daily drink juice water 62 89

Step V: is the last step of the rearrangement.

As per the rules followed in the above steps, find out in each of following questions the appropriate steps for the given input.

Input: 64 crown 24 prince 84 gold 55 leader

Q56. How many steps would be needed to complete the arrangement?
(a) VI
(b) VII
(c) V
(d) IV
(e) None of these

Q57. Which Step number would be the following output?
"24 55 crown gold prince leader 64 84"
(a) II
(b) III
(c) V
(d) IV
(e) None of these

Q58. Which of the following would be the Step I?
(a) 24 64 crown 55 prince gold leader 84
(b) 24 55 crown gold prince leader 64 84
(c) 24 55 crown prince gold leader 64 84
(d) 24 64 crown prince gold 55 leader 84
(e) None of the above

Q59. What is the sum of the numbers 3rd from the left in Step III and 2nd from the right in step I?
(a) 88
(b) 79
(c) 109
(d) 139
(e) None of these

Directions (60-63): In each question below some statements are given followed by some conclusions. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows from the given statements, disregarding commonly known facts.

Q60. Statements:
Some Silent are Mute.
No Good is Silent.
Only a few Mute is Sound.
Conclusions:
I. All Sound being Silent is a possibility.
II. Some Mute is not Good
(a) Only I follows
(b) Both I and II follow
(c) Only II follows
(d) None follows
(e) None of these

Q61. Statements:
Only Purple is Yellow.
Some Olive is Purple.
Only a few Green is Olive.
Conclusions:
I. Some Olive being Yellow is a possibility
II. Some Purple being Green is a possibility
(a) Only I follows
(b) Both I and II follow
(c) Only II follows
(d) Either I or II follows
(e) None follows

Q62. Statements:
Only a few Crowd are People.
No People is Social.
Only a few Crowd is Distance.
Conclusions:
I. Some Distance is not Social
II. All Social is Crowd.
(a) Only II follows
(b) Both I and II follow
(c) Only I follows
(d) Either I or II follows
(e) None follows

Q63. Statements:
Only Worm is Virus.
All Harm is Worm.
few Health is Harm.
Conclusions:
I. Some Harm being Virus is a possibility
II. Some Worm being Health is a possibility
(a) Only I follows
(b) Both I and II follow
(c) Only II follows
(d) Either I or II follows
(e) None follows

Directions (64-65): Each of the questions below consists of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statement are sufficient to answer the question. Read both the statements and Give answer:
(a) If the data in statement I alone are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.
(b) If the data in statement II alone are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question.
(c) If the data either in statement I alone or in statement II alone are sufficient to answer the question.
(d) If the data even in both statements I and II together are not sufficient to answer the question.
(e) If the data in both statements I and II together are necessary to answer the question.

Q64. What does 'ra' mean in the code language?
I. 'st qm ra' means 'Look wrong question' and 'qm ms st rt' means 'correct look wrong word' in that code language.
II. 'ka tv ne ra' means 'take question and solve' and 'vw wx si ra' means 'either question or answer' in that code language.

Q65. Point Y is in which direction with respect to point X?
I. Point A is east of point B and point X is north of point A. Point Y is north-west of point A.
II. Point X is east of point B and north of point A. Point Y is north of point A.

Directions (66-70): Study the information carefully and answer the questions given below.

Nine boxes are placed one above the other in a stack. Not more than four boxes are placed above box G. Three boxes are placed between box G and box K. Box D is placed immediately above box H. The number of boxes is placed below box K is the same as the number of boxes placed above box A. Two boxes are placed between box F and Box A. Box G does not place at the topmost position. Three boxes are placed between box D and box C which is placed above box D. The number of boxes placed between box C and box E is the same as the number of boxes between box C and box F. Box B does not place below box H.

Q66. How many boxes are placed between box B and box E?
(a) Three
(b) More than Three
(c) One
(d) Two
(e) None of these

Q67. Which of the following box is placed just above box F?
(a) E
(b) C
(c) H
(d) B
(e) None of these

Q68. Which of the following statement is true about box D?
(a) Three boxes are placed between box D and box E
(b) Box D is placed at the topmost position
(c) Box D is placed third from the bottommost position
(d) Box F is placed immediate above box D
(e) None is true

Q69. Which of the following box is placed exactly middle of the stack?
(a) F
(b) C
(c) B
(d) G
(e) None of these

Q70. Which of the following box is placed immediately below box K?
(a) E
(b) B
(c) H
(d) D
(e) None

Directions (71-74): These questions are based on the following arrangement. Study the arrangement carefully to answer these questions.
$ Q D H L O @ P J # 5 4 B U 2 R M 6 ? I A 7 T E F

Q71. How many such symbols are there in the above arrangement each of which is immediately followed by a number and also immediately preceded by a consonant?
(a) None
(b) One
(c) Two
(d) Three
(e) None of these

Q72. If we remove all the vowels in this series, then which of the following element will be 7th from right end?
(a) R
(b) H
(c) D
(d) Q
(e) None of these

Q73. Which of the following alphabet is 3rd to the right of the one which 7th from the left end?
(a) #
(b) R
(c) M
(d) *
(e) None of these

Q74. How many such consonants are there in the above arrangement, each of which is immediately preceded by a consonant and also immediately followed by a consonant?
(a) None
(b) One
(c) Two
(d) Three
(e) More than three

Q75. Health Education constitutes educational programs directed towards improving the state of health and hygiene among individuals and communities. Weaknesses of the health education in India include high dependability on print media, lack of research and conventional training methods of educators, inability to reach all the remote villages and no avenues of professional growth for health educators.

What can be the course of action to increase quality of Health Education in India?
(I) More emphasis should be given on interacting with the villagers on occasions of public gathering like – fares, markets etc.
(II) Moreover, methods like plays, folk shows should be used to convey the message, rather than print media.
(III) Every head of family should go through complete health check-up every month and they should take health policy.
(IV) People visiting hospitals and clinics are more conscious about health issues and so efforts must be made to educate them.
(a) Only I and II
(b) Only II, III and IV
(c) Only III and IV
(d) Only I, II and IV
(e) All of them

Q76. The government announced that a new "double mutant variant" of the novel coronavirus has been detected in the country, along with the three variants from the United Kingdom, South Africa, and Brazil. Dr V K Paul, chairperson of India's Covid-19 task force, said "the most important thing to remember is that viruses will not mutate if they are not allowed to replicate. Testing, quarantine, and containment will limit the spread of the virus".

Which of the following can be postulated from the above statement?

(I) Government is planning for nationwide lockdown to prevent spread of corona virus.

(II) Number of tests will increase in upcoming days.

(III) Double mutant virus is a matter of concern for Government of India.

(a) Only I and III
(b) Only II
(c) Only I
(d) Only II and III
(e) All of three

Directions (77-79): Study the following information and answer the questions.

There are eight members in a family in which three married couples. There are three generation and same number of male and female in this family. K is the father of L. O is father of R. L is the brother of M. P is the daughter of N. P is sister of R. Q is son-in-law of N. R has two children.

Q77. Who among the following is mother of M?
(a) R
(b) P
(c) N
(d) Cannot be determined
(e) None of these

Q78. How N is related to L?
(a) Grandfather
(b) Mother
(c) Grandmother
(d) Brother
(e) None of these

Q79. Who among the following is brother-in-law of P?
(a) O
(b) Q
(c) L
(d) K
(e) None of these

Directions (80-84): Study the information carefully and answer the questions given below.

Eight persons are sitting around a circular table. Some of them are facing towards the centre of the table and some of them are facing outside the centre of the table.
N sits third to right of T. Only one person sits between N and Q. Three persons sit between Q and M. R sits second to the right of M. P sits second to the right of S. P does not sit adjacent to N. Immediate neighbours of M faces the opposite direction. Q sits immediate right of P. Immediate neighbours of T face opposite direction. S sits immediate right of N. S faces T. Q faces the opposite direction as O.

Q80. Who among the following sits third to the right of O?
(a) S
(b) R
(c) Q
(d) P
(e) None of these

Q81. Who among the following faces R?
(a) O
(b) S
(c) N
(d) M
(e) None of these

Q82. How many persons sit between P and M, when counted right of P?
(a) One
(b) Two
(c) Three
(d) Four
(e) None of these

Q83. Which of the following statement is true about N?
(a) N faces the same direction as M
(b) P sits opposite to N
(c) N sits immediate right of O
(d) R sits second to the right of N
(e) None is true

Q84. Who among the following sits immediate right of the one who sits third to the left of Q?
(a) M
(b) T
(c) R
(d) P
(e) None of these

Directions (85-87): Study the information carefully and answer the questions given below.

Five countries fighter planes do air force exercise. Russia plane is 10km north of China plane. Port O is exactly in the middle of the point of Russia plane and China plane. Germany plane is 8km east of China plane. India plane is 8km east of port O. USA plane is 6km north of India plane.

Q85. What is the shortest distance between USA and Germany plane?
(a) 12km
(b) 10km
(c) 8km
(d) 6km
(e) 14km

Q86. If Germany plane goes 20km in the in the west then, what is the direction of India plane with respect to the Germany plane?
(a) North-east
(b) South-west
(c) North-west
(d) South-east
(e) North

Q87. What is the shortest distance between USA plane and port O?
(a) 12km
(b) 14km
(c) 8km
(d) 6km
(e) None of these

Q88. It is a well-known fact that one can learn and remember things easily if it has got both audio and visual aids instead of just audio. Keeping this thing in mind, many study sessions are taken where students are taught with the help of videos. Cinema has been popular since its inception. People came to realize that students can remember more through videos than just from verbal sessions as they observed kids remembering dialogue of the movie, they watched a week ago but nothing from the lecture they attended in the morning.
Which of the following weakens the concept discussed in above statement?
(a) Many EdTech companies has launched their story-video courses for efficient and active learning for children.
(b) Cinema is basically considered as the best among all means of entertainment.
(c) Study material with video and audio is wastage of time.
(d) Cinema has a negative impact on the youth by showing various ways of killing people and adult scenes.
(e) Both (c) and (d)

Directions (89-90): Each of the questions below consists of a question and two statements numbered I, and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question. Read all the two statements and Give answer:

(a) If the data in Statement I is sufficient to answer the question while the data in Statement II is not required to answer the question

(b) If the data in Statement II is sufficient to answer the question, while the data in Statement I is not required to answer the question

(c) If the data in either Statement I alone or Statement II alone is sufficient to answer the question

(d) If the data neither in Statement I nor in Statement II together are sufficient to answer the question

(e) If the data in the Statement I and II together are necessary to answer the question

Q89. In a row, a certain number of persons are sitting. What is the total number of persons in the row?
I. Position of Riya is 21st from the left end and the position of Shiv is 29th from the right end.
II. Shivani is 23rd from the left end and 14th from the right end.

Q90. Among six friends K, L, M, N, O and P who is the heaviest, if all are having different weights?
I. L is heavier than O. P is heavier than L and N. O is not the lightest.
II. K is heavier than P but not the heaviest.

Directions (91-95): Study the following information carefully and answer the question given below.

Eight persons are sitting in a row. Four of them are facing north while the rest are facing south direction. Only three persons sit between P and R. P sits at one of the extreme ends. S sits third to the left of R and faces the same direction as R. More than two persons sit between Q and U. T sits third to the left of W. V sits second to the left of U, both are facing the opposite direction. The persons who sit at the extreme ends faces opposite direction. S does not sit at an extreme end. Neither Q nor U is an immediate neighbor of R. W is facing the opposite direction of P and Q. T is not an immediate neighbor of V and faces south.

Q91. Who amongst the following is sitting exactly between S and the one who sits second to the right of V?
(a) P
(b) Q
(c) T
(d) U
(e) W

Q92. Who amongst the following sits third to the left of T?
(a) P
(b) W
(c) R
(d) S
(e) V

Q93. Four of the following five are alike in a certain way so form a group, who among the following does not belong to that group?
(a) P
(b) Q
(c) R
(d) T
(e) W

Q94. How many people sit between P and V?
(a) Four
(b) Three
(c) None
(d) Two
(e) One

Q95. Who among the following sits fourth to the right of the one who sits second to the left of U?
(a) V
(b) W
(c) Q
(d) S
(e) T

Directions (96-99): In these questions, relationships between different elements are shown in the statements. These statements are followed by two conclusions. Give answer
(a) If only conclusion I follows
(b) If only conclusion II follows
(c) If either conclusion I or conclusion II follows
(d) If neither conclusion I nor conclusion II follows
(e) If both conclusions I and II follow

Q96. Statements: P1 > P2 = P3 < P4 $\leq$ P5 > P6
Conclusions: I. P5 > P2 II. P6 > P3

Q97. Statements: P $\geq$ N > D $\geq$ G < B $\leq$ J
Conclusions: I. G < P II. G < J

Q98. Statement: Q $\leq$ E < I > N = R $\geq$ S
Conclusions: I. E $\geq$ S II. S $\leq$ N

Q99. Statement: R = S $\geq$ Y $\geq$ M < W > O
Conclusions: I. Y < M II. O > S

Q100. If in the number "**8634726521,** positions of the first and the second digits are interchanged, positions of the third and fourth digits are interchanged and so on till the positions of 9th and 10th digits are interchanged, then which digit will be 6th from the left end?
(a) 7
(b) 1
(c) 3
(d) 9
(e) None of these

Direction (101 – 106): Table given below shows five colleges in which there are five departments viz - Arts, commerce, Medical, science and vocational. Also, table tells shows total received application in department and percentage of cancel applications (Male + female) and ratio of male to female in approved application.

Departments	Total Application received	Percentage of cancel applications	Ratio of (male: female) Approved
Arts	P	40%	11 : 7
commerce	1400	Q	29:21
Medical	1600	35%	R
Science	S	55%	43:17
vocational	800	60%	T

Q101. If the difference between approved male applications and approved female applications in Arts department is 200, then find P is how what percent more than applications received in vocational department?
(a) 75%
(b) 87.5%
(c) 62.5%
(d) $66\frac{2}{3}\%$
(e) 50%

Q102. If the difference between approved male applications and approved female applications in science department is 234, then find the sum of total applications received in science, commerce and medical department together?
(a) 4200
(b) 4400
(c) 4600
(d) 3800
(e) 5200

Q103. If the difference between approved male applications and approved female applications in Arts department is 100, then find difference between P and cancel application in medical department?
(a) 170
(b) 180
(c) 190
(d) 165
(e) 175

Q104. If the number of approved male applications in vocational department is 40 more than that of approved female applications, then find the ratio of approved female applications to approved male applications in the same department?
(a) 9 : 7
(b) 5 : 7
(c) 13 : 9
(d) 7 : 9
(e) 7 : 11

Q105. Find the ratio of canceled application in medical department to vocational department?
(a) 7 : 5
(b) 5 : 7
(c) 13 : 9
(d) 9 : 7
(e) 7 : 6

Q106. If the difference between approved male applications and approved female applications in commerce department is 112, then find sum of Q and total application received in medical department?
(a) 2300
(b) 2400
(c) 2700
(d) 2800
(e) 3200

Q107. Pipe A alone can fill a tank in 30 mins and pipe B alone can fill the same tank in 'X' mins. Pipe C alone can empty the tank in 60 mins. If pipes A, B, and C together take $25\frac{5}{7}$ min to fill the same tank, then find time taken by pipe B alone to fill the $\frac{3}{5}$ th of the same tank?
(a) 12 min
(b) 18 min
(c) 27 min
(d) 21 min
(e) 24 min

Q108. A vessel contains 232-liter mixture of zinc and sodium out of which 37.5% is sodium. 48 lit of mixture is taken out and 18-liter sodium & 14-liter zinc are added in remaining mixture. Find the ratio between quantity of sodium to zinc in the final mixture.
(a) 43:29
(b) 43:27
(c) 27::43
(d) 41:29
(e) 29 : 43

Q109. Train A having length 450 m crosses a platform thrice of its length in 36 sec. Train B running at the speed of 54 kmph crosses a standing man in 50 sec. find the time taken by both trains to cross each other when running in same direction.
(a) $28\frac{2}{7}$ seconds
(b) $24\frac{2}{7}$ seconds
(c) $34\frac{2}{7}$ seconds
(d) $36\frac{2}{7}$ seconds
(e) $30\frac{2}{7}$ seconds

Q110. Amit and Bunty started a business with the capital of Rs 3200 & Rs 4400 respectively. After four months Amit increased his investment by 12.5% and Bunty withdrawn his $9\frac{1}{11}$% from his investment. If at the end of year, difference of their profit shares is Rs. 1750, then find the profit share of Bunty (in Rs.)?
(a) 10850
(b) 10750
(c) 10250
(d) 10150
(e) 11250

Q111. Age of Sonali is 25% more than the age of Mitra. If the ratio of present age of Mitra to Sam is 4 : 9 and after 12 years, the average of Sam and Sonali will be 40 years, then find the sum of Ages of Sonali four years hence and Sam six years ago?
(a) 54 yrs
(b) 48 yrs
(c) 52 yrs
(d) 46 yrs
(e) 50 yrs

Q112. If difference between total compound interest in two years and total simple interest in three years on a certain sum at the rate of interest 12% p.a. is Rs 4224, then what will be the compound interest earned when two times of the same sum invested at 10% per annum for two years?
(a) Rs 12800
(b) Rs 16800
(c) Rs 16400
(d) Rs 17800
(e) Rs 19200

Q113. If the breadth of rectangle is increased by 2cm then it will become side of a square. Area of square is 24cm² more than the area of rectangle and the ratio of length and breadth of rectangle is 6 : 5. Then, find the ratio of area of rectangle to the area of square.
(a) 3 : 4
(b) 5 : 6
(c) 12 : 13
(d) 6 : 7

Q114. X invested Rs. P at 10% per annum, Y invested Rs. (P – 4000) at the rate of 12% per annum. If they both get total compound interest at the end of two years Rs. 6412.8, then find capital invested by Y ?
(a) 16000 Rs.
(b) 12000 Rs.
(c) 10000 Rs.
(d) 14000 Rs
(e) 18000 Rs.

Q115. Ratio of present salary of Ankit and Pankaj is 6:5 and ratio of their present salary to previous year salary is 4:3 and 5:4 respectively. If difference between previous year salary of Ankit and Pankaj is Rs.2000, then find present salary of Pankaj?
(a) Rs 24000
(b) Rs 18000
(c) Rs 20000
(d) Rs 16000
(e) Rs 21000

Q116. A shopkeeper gives 20% discount on each article. He also gives one article free at every 4 articles he sold and earns 8% profit, if M.R.P. of each article is Rs. 270 find cost price of one article when he bought five articles?
(a) Rs. 150
(b) Rs. 120
(c) Rs. 160
(d) Rs. 100
(e) None of these

Q117. X men can do a piece of work in 21 days working 8 hours each day. The number of days taken by X men is 70% of number of days taken by (x – 1) men, working 6 hours a day. Find the value of X.
(a) 14
(b) 13
(c) 15
(d) 16
(e) 17

Direction (118– 122): What will come in the place of question (?)
mark in the following number series:

Q118. 12, 7, 8.5, 14.75, ?, 83
(a) 30
(b) 24
(c) 32
(d) 36
(e) 48

Q119. 12, 78, 395, 1584, 4755, ?
(a) 9512
(b) 9516
(c) 9518
(d) 9520
(e) 9580

Q120. 26, 53, 214, 1287, 10300, ?
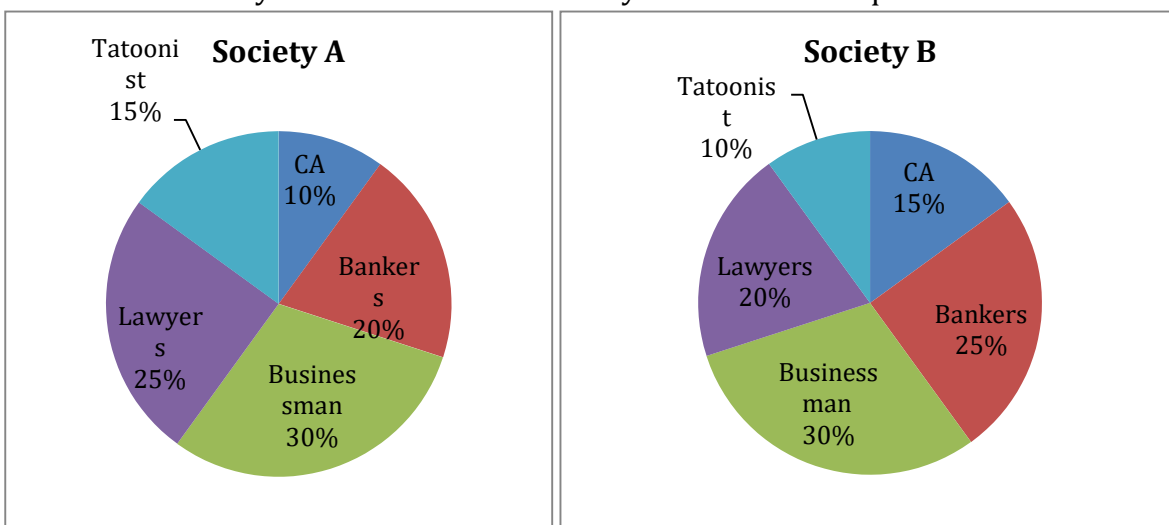(a) 95000
(b) 100005
(c) 103000
(d) 101005
(e) 103005

Q121. 4187, 2857, 2129, 1787, 1663, ?
(a) 1647
(b) 1642
(c) 1627
(d) 1637
(e) 1630

Q122. 27, 27, 54, 18, 72, ?
(a) 19.6
(b) 16.8
(c) 18.8
(d) 12.8
(e) 14.4

Direction (123 −127) : Given below pie chart (i) shows percentage distribution of five different professional lives in a society 'A' while pie chart (ii) shows percentage distribution of these five different professional lives in a society 'B'. Read the data carefully and answer the questions.

Society A
Tatoonist 15%
CA 10%
Bankers 20%
Businessman 30%
Lawyers 25%

Society B
Tatoonist 10%
CA 15%
Bankers 25%
Businessman 30%
Lawyers 20%

Q123. If total professionals in society B is 40% more than total professionals in society A, then find total approximate percentage of bankers together in society A & society B?
(a) 19%
(b) 15%
(c) 11%
(d) 9%
(e) 23%

Q124. Total tattooist in both the society is 108 and total businessman in society A is 36 more than total businessman in society B, then find total lawyers in both the society?
(a) 184
(b) 188
(c) 192
(d) 186
(e) 196

Q125. Total CA in society A is $88\frac{8}{9}$% of total CA in society B, then find total bankers in society A is what percent more than total bankers in society B?
(a) 1%
(b) 3%
(c) 5%
(d) $6\frac{2}{3}$%
(e) 2%

Q126. Ratio of total professional in society A & B is 8 : 7 and difference between total CA in society A and total bankers in society B is 114, then find total number of businessman in both societies?
(a) 540
(b) 520
(c) 480
(d) 420
(e) 500

Q127. Total professional in society B is 20% more than that of total professional in society A. Find the ratio of total lawyer in society A to total bankers in society B?
(a) 5 : 4
(b) 5 : 6
(c) 5 : 7
(d) 5 : 9
(e) 5 : 3

Q128. Average of four numbers is 64. If 3 is added to first number, multiplied to second, subtracted from the third and divided to last one then all the values are same. Find the difference between 2nd highest and the smallest number?
(a) 45
(b) 35
(c) 42
(d) 39
(e) 32

Q129. 3 years ago, ratio of age of A and B is 3:1. If the present age of B is $37\frac{1}{2}\%$ of the present age of A then what is the difference between their present ages (in years)?
(a) 25
(b) 30
(c) 35
(d) 40
(e) 45

Q130. Ratio of volume of conical tent to total surface area of hemispherical bowl is 8 : 1. Radius of bowl and tent is equal and slant height of tent is 75cm. If radius of conical tent is equal to side of a cube, then find curved surface area of cube.
(a) 1576 cm²
(b) 1764 cm²
(c) 1852 cm²
(d) 1690 cm²
(e) 1512 cm²

Q131. 'A' purchased two beds at same price. He further sold one bed to 'B' at 60% profit and other bed to 'C' at 20% profit. 'C' further sold the bed to 'D' at 20% less than the average of cost price of bed for 'B' & 'C'. If D incurred 25% loss by selling the bed to 'E' at Rs.2100, then find the difference between the cost price of a bed for 'A' and 'D'.
(a) Rs.700
(b) Rs.450
(c) Rs.900
(d) Rs.300
(e) Rs.600

Q132. Speed of boat in downstream is twice the speed of boat in upstream, if boat cover 96 km in downstream and 72 km upstream in total 20 hours. Find still water speed of boat?
(a) 6km/hr
(b) 8km/hr
(c) 7km/hr
(d) 9 km/hr
(e) 12km/hr

Q133. In a bag, there are some red and total 9 black and yellow balls. Probability of selecting two red balls from that bag is 1/7 which is 250% of the probability of selecting two black balls. Find number of yellow balls in that bag if the number of black balls is even.
(a) 3
(b) 5
(c) 6
(d) 4
(e) None of these

Q134. In a university election of two candidates, 80% of the students cast their votes out of which 120 votes are invalid. The winner gets 37.5% of the total students votes and won by only 30 votes. Then find the number of students who don't cast their votes?
(a) 360
(b) 320
(c) 340
(d) 300
(e) 380

Q135. Rahul is going from Gurgaon to Agra from his car at the speed of 80 kmph. After 120 km, he reduces his speed by 12.5% and completes the whole journey in 5.5 hours. Find total time taken by him to cover the same distance, if he had reduced the speed after 2 hours.
(a) 6 hours
(b) 5.2 hours
(c) $5\frac{3}{7}$ hours
(d) $4\frac{3}{7}$ hours
(e) 4.8 hours

Directions (136-140): The line graph given below shows the no. of laptops (HP and Dell) sold by Hemant in five days. Read the Line graph given below carefully and answer the following questions.
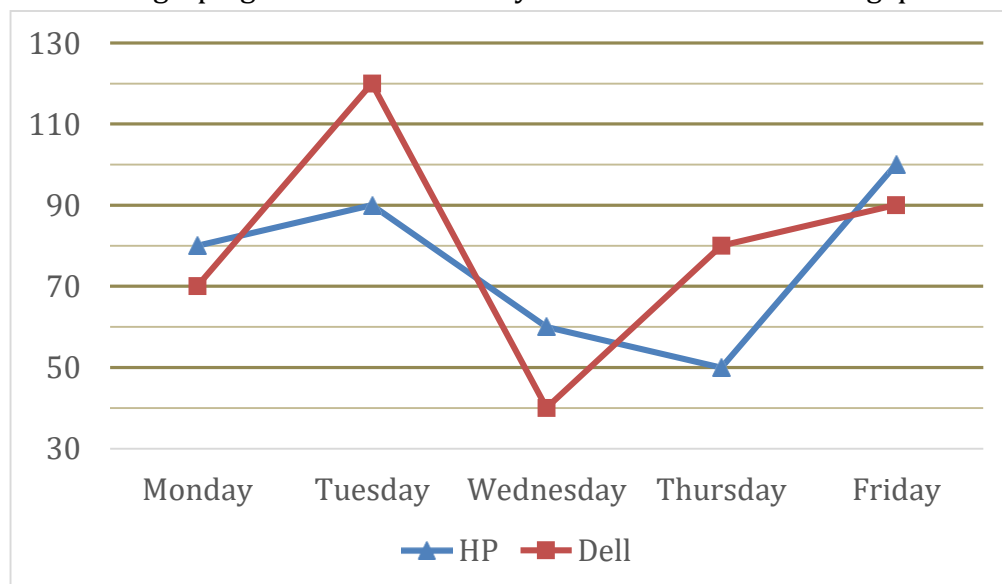
Q136. What is the difference between the average no. of HP laptop sold by Hemant on Wednesday, Thursday and Friday and that of Dell laptop on Tuesday, Wednesday and Thursday?
(a) 20
(b) 10
(c) 15
(d) 5
(e) 25

Q137. If price of HP laptop is 20% more than that of Dell laptop, then find the amount he earned on Wednesday is what percentage of amount he earned on Thursday.
(a) 60%
(b) 75%
(c) 50%
(d) 60%
(e) 80%

Q138. Total laptops sold on Tuesday is what percentage more/less than that on Monday.
(a) 20%
(b) 40%
(c) 60%
(d) 50%
(e) 25%

Q139. From Monday to Friday, 20% of total Dell laptops found defective while 60% of remaining remains unsold. Find the total no. of Dell laptops.
(a) 1250
(a) 1000
(c) 750
(d) 600
(e) 1500

Q140. If the ratio of no. of HP and Apple laptops sold by shopkeeper on Wednesday, Thursday and Friday is 4: 7, 5: 3 and 4: 5 respectively, then find the apple laptop sold by shopkeeper on same days.
(a) 240
(b) 220
(c) 280
(d) 250
(e) 260

Directions (141-145): Read the given information carefully and answer the following questions.
A, B, C and D started a business in partnership. A invested Rs. 5000 for whole period whereas the average of initial investment for all four is Rs. 5975. Investment made by D is 25% more than B and ratio of investment made by B to that of C is 10 : 9. Time period for which B invested his amount is 2/3rd of that of A. Sum of time period for which C & D invested is equal to total time period for which A & B invested and profit share of C is 18/79th of total profit at the end of the year.

Q141. Find ratio of period of investment of C to that of D?
(a) 1 : 1
(b) 1 : 2
(c) 2 : 3
(d) 3 : 2
(e) 4 : 3

Q142. Difference between investment of D & C is what percent of difference between investment of B & D?
(a) 125%
(b) 100%
(c) 150%
(d) 140%
(e) 160%

Q143. If at the end of business term, total profit is Rs. 15,800, then find the difference between profit share of A & D.
(a) Rs. 800
(b) Rs. 1200
(c) Rs. 1000
(d) Rs. 1500
(e) None of these

Q144. Profit share of B is what percent of profit share of A?
(a) 80%
(b) 75%
(c) 60%
(d) 100%
(e) 65%

Q145. Investment of C & D together is approximately what percent of total investment of all the four?
(a) 45%
(b) 48%
(c) 50%
(d) 52%
(e) 54%

Directions (146-150): What approximate value will come in place of question mark (?) in the given questions: (You are not expected to calculate the exact value.)

Q146. $?^2 + 190.98 - 19.01 \times 6.97 = 316.99 \times 1.99$
(a) 14
(b) 19
(c) 24
(d) 26
(e) 16

Q147. $768.06 \div 11.97 \times \sqrt{256.05} - 58.05 = ?$
(a) 1033
(b) 1175
(c) 966
(d) 880
(e) 975

Q148. 34.02% of $550.09 \div ? = 297.07 \div \sqrt{728.95}$
(a) 14
(b) 21
(c) 8
(d) 27
(e) 17

Q149. $(? \div 9.97) \times 12.08 = 20.12\%$ of 1319.97
(a) 220
(b) 240
(c) 260
(d) 280
(e) 200

Q150. $?\% \ of \ 179.99 = \sqrt{(24.02)^2 + (17.98)^2} + 60.01\% \ of \ 659.98$
(a) 80
(b) 60
(c) 40
(d) 20
(e) 10

SOLUTIONS

S1. Ans.(c)
Sol. Console means comfort (someone) at a time of grief or disappointment.
Attenuate means reduce the force, effect, or value of.
Intrigue means arouse the curiosity or interest of; fascinate.
Gratify means give (someone) pleasure or satisfaction.
Disquieting means inducing feelings of anxiety or worry.
Assuage means make (an unpleasant feeling) less intense.
Enervate means make (someone) feel drained of energy or vitality.
Incarcerate means imprison or confine.
Going through the meaning of the given words it can be seen that the most appropriate answer choice would be option (c)

S2. Ans.(b)
Sol. Frivolous means not having any serious purpose or value.
Malaise means a general feeling of discomfort, illness, or unease whose exact cause is difficult to identify.
Arduous means involving or requiring strenuous effort; difficult and tiring.
Benevolence means the quality of being well meaning; kindness.
So going through the meaning of the given words it can be clearly seen that the appropriate filler for given blanks to make the given sentence grammatically correct and contextually meaningful would be option (b)

S3. Ans.(d)
Sol. Foster means encourage the development of something.
So, foster in its current position is not adding any reasonable meaning to the sentence but interchanging it with 'Trust' will make the sentence both grammatically as well as contextually correct. Hence, the correct answer choice would be option (d)

S4. Ans.(d)
Sol. Reading the sentences preceding the blank which is talking about the challenges faced by different sectors and the given sentence is talking about the startups. So, from the given options, only (d) can fit the given blank because it is describing the state of startups in the current scenario as described by the author. Hence, the correct answer choice would be option (d)

S5. Ans.(a)
Sol. Accretion means growth or increase by the gradual accumulation of additional layers or matter.
Stagnation means lack of activity, growth, or development.
Appurtenance means an accessory or other item associated with a particular activity or style of living.
As the given sentence is talking about slowdown in economic activity due to various factors, the appropriate filler for the given blank would be 'stagnation'. Hence, the correct answer choice would be option (a)

S6. Ans.(d)
Sol. In the given sentence usage of 'have' is incorrect instead it should be 'has' because if two or more than two nouns or adjectives are joined by 'and' but only one person or thing or idea is discussed then singular verb is used. Hence, the correct answer choice would be option (d)

S7. Ans.(e)
Sol. In the given sentence, 'undertaking' and 'entrepreneurs' are not correct in their respective position as they fails to impart any reasonable meaning to the sentence. But interchanging them will make the given sentence both grammatically and contextually correct. Hence, the correct answer choice would be option (e)

S8. Ans.(c)
Sol. From the given options, option (c) is not true as per Fabian's observations. Evidence in support of the given argument can be found in the second paragraph of the given passage in which it is stated that '*as intergalactic gas cools, the cooler gas shrinks inward toward the center of the galaxy. Meanwhile its place is taken by hotter intergalactic gas from farther out on the edge of the galaxy*' here it is mentioned that cooler gas is replaced with gas on outer edge of galaxy, not from different galaxy. Hence, the correct answer choice would be option (c)

S9. Ans.(b)
Sol. From the beginning of the passage, author has argued with absence of matter in space and supported this argument with various facts and incidents. So, from the given options most appropriate answer choice would be option (b)

S10. Ans.(d)
Sol. After reading the passage we can get an idea that the cold gases flows toward the center of the galaxy. So, in accordance with the passage, appropriate filler for the given blank would be 'falling'. Hence, the correct answer choice would be option (d)

S11. Ans.(c)
Sol. From the given statements, only option (c) is correct and evidence in support of the given argument can be found in the first paragraph of the given passage in which it is stated that '. *The gas apparently condenses into a collection of small stars, each a little larger than the planet Jupiter.'* Hence, the correct answer choice would be option (c)

S12. Ans.(a)
Sol. From the given options, option (a) is the most appropriate answer choice and evidence in support of the given argument can be found in the first paragraph of the given passage in which it is stated that '*astronomers who believe that a heavy "rain" of gas is falling into many galaxies from the supposedly empty space around them.*' From given statement option (a) can be inferred clearly and hence, the correct answer choice.

S13. Ans.(d)
Sol. To validate the answer, refer to the third paragraph of the passage given above, which mentions, "*The support from high quality global suppliers not only helps OV to implement their product strategy but also secures delivery support for OV during the peak season, when component shortages are common with competitors. This helps OV overcome their smaller supplier penetration compared with the global volumes of the competition.*" Referring to the quoted text, we can infer that the statements given in options (b) and (c) are correct. Hence, option (d) is the most suitable answer choice.

S14. Ans.(e)
Sol. It can be clearly inferred from the last paragraph that the statements given in options (b) and (d) are correct and are in line with the questions. Hence, option (e) is the most suitable answer choice.

S15. Ans.(c)
Sol. To validate the answer, refer to the first paragraph of the passage given above, which mentions, "*However, the size of this market didn't offer much protection to market leaders. As recently as last year, newcomers were still muscling in and snatching market share from under the noses of more well known, established brands.*" Referring to the quoted text, we can infer that the statement given in option (c) is correct. Hence, option (c) is the most suitable answer choice.

S16. Ans.(b)

Sol. To validate the answer, refer to the last few lines of the second paragraph, which mentions, "*This resulted in a shortage of key components and fierce competition among brands to obtain them. The fully outsourced model meant Xiaomi had less bargaining power than its competitors. Because of a shortage of processors and DRAM, Xiaomi suffered a shipment shortage of 8 million units and its market share plunged.*" From the quoted text, we can infer that the statements (i) and (ii) are correct. Hence, option (b) is the most suitable answer choice.

S17. Ans.(d)

Sol. Among the given words, "profusion" is opposite of "shortage". Hence, option (d) is the most suitable answer choice.

Penitent: feeling or showing sorrow and regret for having done wrong; repentant.

Remorseful: filled with remorse; sorry.

Quandary: a state of perplexity or uncertainty over what to do in a difficult situation

Enigmatic: difficult to interpret or understand; mysterious.

S18. Ans.(c)

Sol. Among the given words, "deferential" is synonymous with "respectful". Hence, option (c) is the most suitable answer choice.

Folly: lack of good sense; foolishness.

Indiscretion: behavior or speech that is indiscreet or displays a lack of good judgement.

Lunacy: the state of being a lunatic; insanity (not in technical use).

Frenzy: a state or period of uncontrolled excitement or wild behavior.

S19. Ans.(d)

Sol. Among the given words, only "proprietary" can fit in both the blanks and the blank given in the passage. Hence, option (d) is the most suitable answer choice.

Proprietary: relating to an owner or ownership/ (of a product) marketed under and protected by a registered trade name

Qualm: an uneasy feeling of doubt, worry, or fear, especially about one's own conduct; a misgiving.

Suspicious:

Dubiety: the state or quality of being doubtful; uncertainty.

Incertitude: a state of uncertainty or hesitation.

S20. Ans.(b)

Sol. Among the given highlighted words, (B) and (D) are at their correct positions and do not require any interchange. Also, the phrase 'the longer the deployed' indicated towards the interchange. Here, the most suitable interchange will be with 'clampdown'. Hence, option (b) is the most suitable answer choice.

S21. Ans.(e)

Sol. Among the given highlighted words, none of them needs interchange and make contextually and grammatically meaningful statements. Hence, option (e) is the most suitable answer choice.

S22. Ans.(b)
Sol. Among the given highlighted words, the phrase, 'who have been groups of Mr. Trump', indicates towards the interchange. The most suitable interchange will be with 'critical'. Similar is the case with (A) and (D). Hence, option (d) is the most suitable answer choice.

S23. Ans.(d)
Sol. Among the given highlighted words, (B) and (C) seem to be at their correct positions and do not require any interchange. But the phrase, 'politics with international achieved', hints towards interchange. Here the most suitable interchange will be 'diplomacy-achieved'. Hence, option (d) is the most suitable answer choice.

S24. Ans.(b)
Sol. Among the given highlighted words, the positions of (A) and (D) are correct. But the phrase 'relative political emerged during the recent crisis' hints towards interchange. Here, the most suitable interchange will be 'inexperience-emerged'. Hence, option (b) is the most suitable answer choice.

S25. Ans.(b)
Sol. It must be "has been arrested" because the sentence is in passive voice.
The truck driver himself got arrested. When we say the driver has arrested it means he arrested someone. Hence, answer would be option (b).

S26. Ans.(c)
Sol. There is a grammatical error in the highlighted phrase. Modal verbs are always followed by base form of the verb. Hence, there should be "carry" in place of "carried".
Hence, answer would be option (c).

S27. Ans.(e)
Sol. There is no error in the highlighted part of the sentence.
Hence, answer would be option (e).

S28. Ans.(b)
Sol. "But" is used to connect two contrasting ideas and "and" is used to connect similar ideas.
Hence, answer would be option (b).

S29. Ans.(a)
Sol. There is a grammatical error in the sentence. 'Air quality during Diwali is likely to be not as bad as last year' is the correct form.
Hence, answer would be option (a).

S30. Ans.(d)
Sol. Since subject "winds" is plural verb must also be plural. Additionally past and past participle form of "forecast" is "forecast" itself.
Hence, answer would be option (d).

S31. Ans.(d)
Sol. After "held" a noun is required. "Protested" is a verb so the correct form would be "protest".
Hence, answer would be option (d).

S32. Ans.(a)
Sol. There is a grammatical error in the sentence. The correct one is "police said they have received".
Hence, answer would be option (a).

S33. Ans.(c)
Sol. Here, 'whom' will be replaced by 'who' as 'whom' is an objective case while 'who' is a nominative case which is always followed by a verb.

S34. Ans.(d)
Sol. Here, 'for' will be replaced by 'to' as the structure is as follows :
Subject + Invite(somebody) to dinner/a function .
This makes our correct option (d).

S35. Ans.(d)
Sol. Here 'his' will be replaced by 'their' in part (d) as the subject here is in plural form (Ayush and his friend), that will make a plural verb 'their'. This makes our correct option (d).

S36. Ans.(c)
Sol. As the sentence is in passive voice, so 'to lower down' will be replaced by 'should be lowered' as for a suggestion we use 'should' in a sentence.

S37. Ans.(b)
Sol. Here, we will need an adjective 'thorough' instead of 'thoroughly', thoroughly being an adverb fails to follow the 'search' which is noun here. So, we will replace the word 'thorough'.

S38. Ans.(d)
Sol. From the given options, only sentence C-E makes a contextually meaningful sentence because the first part of the sentence is talking about the protests of the Muslim and Dalit organisations and the reason of the same is explained in the part (E). However the other combination fails to do so. The sentence thus formed will be, '*Muslim and Dalit organisations staged protests against the controversial legislation criminalising triple talaq'.* Hence, the correct answer choice would be option (d)

S39. Ans.(c)
Sol. From the given phrases, only phrase (A) and (F) are able to make a contextually meaningful sentence which is also free from any grammatical errors. The sentence thus formed is, '*State Bank of India (SBI), the country's largest lender, reported a net profit of ₹2,312 crore for the April-June quarter.*' Also, B-D can make a contextually meaningful sentence but the sentence thus formed will be grammatically incorrect due to the use of the 'Private' instead of 'Privatisation'. Hence, the correct answer choice would be option (c).

S40. Ans.(b)
Sol. Out of the given phrases, only B-F makes a contextually meaningful and grammatically correct sentence because in phrase (B) there is mention of imposing something and this is complemented by the 'penalty' in the phrase (F). So the sentence thus formed is, '*The Reserve Bank of India (RBI) has imposed a monetary penalty on eight banks for violating various norms.*'
Hence, the correct answer choice would be option (b)

S41. Ans.(b)
Sol. Going through the given sentences it can be clearly seen that (D), (C) and (E) can't be the first sentence in the arrangement because of the use of the starter 'As a result', 'Thus' and 'This'. Also, (A) can't be the first sentence because of the use of abbreviation SRB which is defined in the sentence (D) so it is implied that sentence (A) will be at one of the position after (D). So, the first sentence in the rearrangement will be sentence (B). This will be then followed by sentence (D) because it is telling about the result of the continuous increase in the rise of female foeticide. The sentence (E) is presenting us with the facts in the support of the argument discussed in sentence (D) so it will be the next sentence in the arrangement. From the remaining two first will be (A) because of the use of 'Thus' in the sentence (C) and the last sentence in the arrangement will be (C). So, the correct arrangement will be **BDEAC.** Hence, the correct answer choice would be option (b)

S42. Ans.(a)
Sol. Going through the given sentences it can be clearly seen that (D), (C) and (E) can't be the first sentence in the arrangement because of the use of the starter 'As a result', 'Thus' and 'This'. Also, (A) can't be the first sentence because of the use of abbreviation SRB which is defined in the sentence (D) so it is implied that sentence (A) will be at one of the position after (D). So, the first sentence in the rearrangement will be sentence (B). This will be then followed by sentence (D) because it is telling about the result of the continuous increase in the rise of female foeticide. The sentence (E) is presenting us with the facts in the support of the argument discussed in sentence (D) so it will be the next sentence in the arrangement. From the remaining two first will be (A) because of the use of 'Thus' in the sentence (C) and the last sentence in the arrangement will be (C). So, the correct arrangement will be **BDEAC.** Hence, the correct answer choice would be option (a)

S43. Ans.(d)
Sol. Going through the given sentences it can be clearly seen that (D), (C) and (E) can't be the first sentence in the arrangement because of the use of the starter 'As a result', 'Thus' and 'This'. Also, (A) can't be the first sentence because of the use of abbreviation SRB which is defined in the sentence (D) so it is implied that sentence (A) will be at one of the position after (D). So, the first sentence in the rearrangement will be sentence (B). This will be then followed by sentence (D) because it is telling about the result of the continuous increase in the rise of female foeticide. The sentence (E) is presenting us with the facts in the support of the argument discussed in sentence (D) so it will be the next sentence in the arrangement. From the remaining two first will be (A) because of the use of 'Thus' in the sentence (C) and the last sentence in the arrangement will be (C). So, the correct arrangement will be **BDEAC.** Hence, the correct answer choice would be option (d)

S44. Ans.(e)
Sol. Going through the given sentences it can be clearly seen that (D), (C) and (E) can't be the first sentence in the arrangement because of the use of the starter 'As a result', 'Thus' and 'This'. Also, (A) can't be the first sentence because of the use of abbreviation SRB which is defined in the sentence (D) so it is implied that sentence (A) will be at one of the position after (D). So, the first sentence in the rearrangement will be sentence (B). This will be then followed by sentence (D) because it is telling about the result of the continuous increase in the rise of female foeticide. The sentence (E) is presenting us with the facts in the support of the argument discussed in sentence (D) so it will be the next sentence in the arrangement. From the remaining two first will be (A) because of the use of 'Thus' in the sentence (C) and the last sentence in the arrangement will be (C). So, the correct arrangement will be **BDEAC.** Hence, the correct answer choice would be option (e)

S45. Ans.(c)
Sol. Going through the given sentences it can be clearly seen that (D), (C) and (E) can't be the first sentence in the arrangement because of the use of the starter 'As a result', 'Thus' and 'This'. Also, (A) can't be the first sentence because of the use of abbreviation SRB which is defined in the sentence (D) so it is implied that sentence (A) will be at one of the position after (D). So, the first sentence in the rearrangement will be sentence (B). This will be then followed by sentence (D) because it is telling about the result of the continuous increase in the rise of female foeticide. The sentence (E) is presenting us with the facts in the support of the argument discussed in sentence (D) so it will be the next sentence in the arrangement. From the remaining two first will be (A) because of the use of 'Thus' in the sentence (C) and the last sentence in the arrangement will be (C). So, the correct arrangement will be **BDEAC.** Hence, the correct answer choice would be option (c)

S46. Ans.(d)
Sol. From the given options, 'building' will not fit in the second blank because it doesn't impart any logical meaning to the given sentence whereas the remaining two options fit both the blanks to make the given sentence both grammatically and contextually correct. Hence, the correct answer choice would be option (d)

S47. Ans.(b)
Sol. Taking hint from 'allowed them to track' and 'Map Kit' we can clearly see that the appropriate filler for the given blanks would be 'mapping'. Also, remaining two options
fail to fit the given blank to make a contextually meaningful sentence.
Hence, the correct answer choice would be option (b)

S48. Ans.(d)
Sol. From the given options, 'support' will fit in both the blanks. But, 'gathering' will not fit the first blank as it doesn't impart any meaningful sense to the given sentence. Also, 'opposition' fits in both the blanks to make a contextually meaningful and grammatically correct sentence. Hence, the correct answer choice would be option (d)

S49. Ans.(c)

Sol. Going through the given sentences, it can be clearly seen that 'turbulent' and 'unification' will not fit the given blanks as they fails to make the given sentence contextually meaningful. Only 'extremes' will fill the blanks to make the given sentence contextually and grammatically correct. Hence, the correct answer choice would be option (c)

S50. Ans.(b)

Sol. Dislodged means remove from a position of power or authority.

From the given options, 'constructed' will not impart any meaningful sense to given sentences. Also, 'remove' will make the given sentence grammatically incorrect. Only 'dislodged' will fill the given blanks to make the given sentences grammatically and contextually correct. Hence, the correct answer choice would be option (b)

Solutions (51-55): From the given statements, K was born in Vienna and lives on an odd numbered floor. P lives on the topmost floor. The number of persons live above K is same live below R who was born in Wels. Here we get 2 possible cases – Case 1 and Case 2.

Floors	Case 1		Case 2	
	Persons	Countries	Persons	Countries
6	P		P	
5	K	Vienna		
4			R	Wels
3			K	Vienna
2	R	Wels		
1				

T was born just after the one who was born in Wels. Here Case 2 is ruled out now.

Floors	Persons	Countries
6	P	
5	K	Vienna
4		
3		
2	R	Wels
1	T	

Q lives three floors above the one who was born in Salzburg. M was born in Graz. The one who was born in Innsbruck lives above the one who was born in Klagenfurt. So, the final arrangement is-

Floors	Persons	Countries
6	P	Innsbruck
5	K	Vienna
4	Q	Klagenfurt
3	M	Graz
2	R	Wels
1	T	Salzburg

S51. Ans.(a)
S52. Ans.(a)
S53. Ans.(c)
S54. Ans.(a)
S55. Ans.(e)

Solutions (56-59): The machine rearranges one word and one number in each step. Firstly, numbers are arranged from both the ends in such a way that the lowest number will be arranged from left end and the highest from right end. Then, in next step, the second lowest on left end and second highest on right end. For words, they will be arranged after the number arrangement and all the words are arranged in alphabetical order from left in such a way that only one word is arranged in one step.

Input: 64 crown 24 prince 84 gold 55 leader
Step I: 24 64 crown prince gold 55 leader 84
Step II: 24 55 crown prince gold leader 64 84
Step III: 24 55 crown gold prince leader 64 84
Step IV: 24 55 crown gold leader prince 64 84

S56. Ans.(d)
S57. Ans.(b)
S58. Ans.(d)

S59. Ans.(c)
Sol. 3rd from the left in Step III – 64
2nd from the right in step I – 55
64 + 55 = 109

Direction (60-63):

S60. Ans.(b)
Sol.
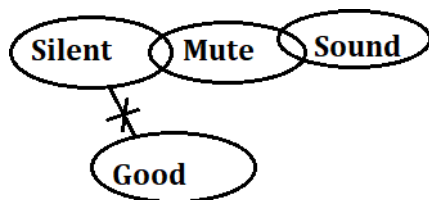
S61. Ans.(c)
Sol.

S62. Ans.(e)
Sol.
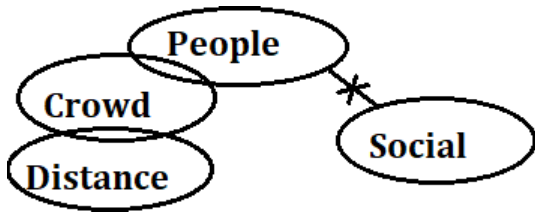
S63. Ans.(e)
Sol.
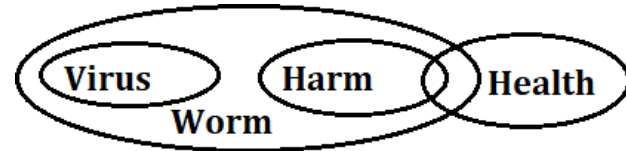
Solutions (64-65):

S64. Ans.(c)
Sol. Using either statement I or statement II we can find the 'ra' means 'question' in coded language.

S65. Ans.(d)
Sol. From statement I:
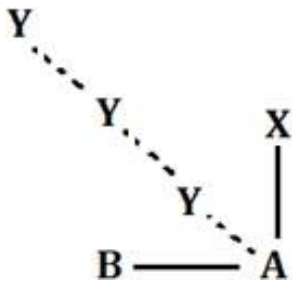
Here we cannot find the exact direction of point Y with respect to point X.
From statement II:
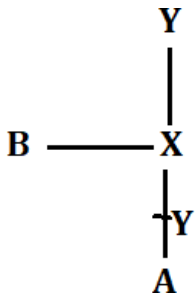
Here we cannot find the exact direction of point Y with respect to point X.

Solutions (66-70): Not more than four boxes are placed above box G. Box G does not place at the topmost position. There are four possibilities. Three boxes are placed between box G and box K. The number of boxes is placed below box K is the same as the number of boxes placed above box A. Two boxes are placed between box F and Box A.

Case-1	Case-2	Case-3	Case-4
Boxes	Boxes	Boxes	Boxes
F/		A	K
G	A		
A	G	F	
	F	G	G
K			F
F/			
	K		
		K	A

Box D is placed immediate above box H. Three boxes are placed between box D and box C which is placed above box D. From this condition case -2 will be eliminated. The number of boxes placed between box C and box E is the same as the number of boxes between box C and box F. From these conditions, case-4 is ruled out. Box B does not place below box H. From this condition, case-1 will be eliminated and the final arrangement is-

Boxes
A
E
C
F
G
B
D
H
K

S66. Ans.(a)
S67. Ans.(b)
S68. Ans.(c)
S69. Ans.(d)
S70. Ans.(e)

Solutions (71-74):

S71. Ans.(b)
Sol. J # 5

S72. Ans.(a)
S73. Ans.(b)

S74. Ans.(c)
Sol. QDH, DHL

S75. Ans.(d)
Sol. During fares or markets, gathering of villagers are good. So, interaction can be better during this period. To aware people, plays or folks are more convenient methods rather than print media. In above statement concern is awareness about health education, and health check-up and policy are course of action after health education. And while visiting to hospitals, either people are with patients or himself suffering from some diseases, so they are more conscious at that time. So, efforts must be made to educate them.

S76. Ans.(d)
Sol. In the statement, discussion and concern has been shown for double mutant variant. Some advice has been given too but there is not any intent of lockdown in mentioned statement.
Advice for testing has been given by Dr VK Paul. And as Government is announcing something which is related to health of people it means they are concern of it. So (d) will be the correct answer.

Solutions (77-79):
Sol.

$$O^{(+)} = N^{(-)}$$

$$K^{(+)} = R^{(-)} - P^{(-)} = Q^{(+)}$$

$$L^{(+)} - M^{(-)}$$
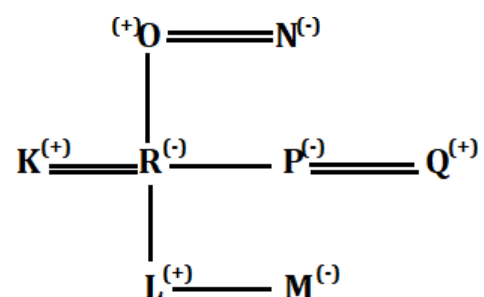
S77. Ans.(a)
S78. Ans.(c)
S79. Ans.(d)

Solutions (80-84): N sits third to the right of T. There are two possibilities. S sits immediate right of N. S faces T.

Case-1   Case-2
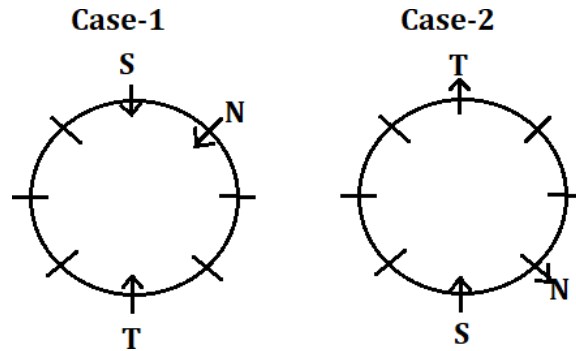
P sits second to the right of S. P does not sit adjacent to N. From this condition case-2 will be eliminated. Only one person sits between N and Q. Q sits immediate right of P. Three persons sit between Q and M. R sits second to the right of M. Immediate neighbours of M faces the opposite direction. Immediate neighbours of T face the opposite direction. Q faces the opposite direction as O. The final arrangement is-
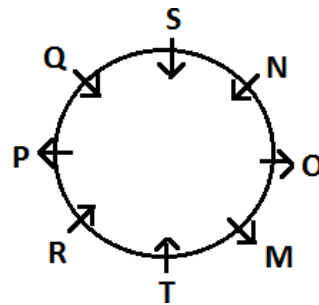
S80. Ans.(b)
S81. Ans.(c)
S82. Ans.(d)
S83. Ans.(e)
S84. Ans.(a)

Solutions (85-87):
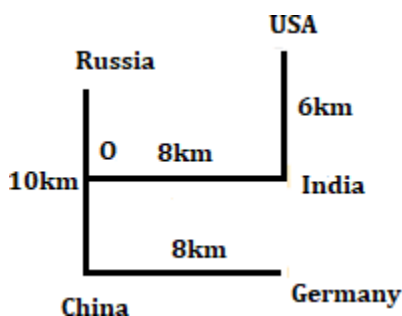
S85. Ans.(b)
S86. Ans.(a)
S87. Ans.(e)

S88. Ans.(c)
Sol. Option (a) is supporting the concept discussed in above statement. Importance of study material with audio and video is discussed above but in option (c) it is said wastage of time. Option (d) will not be right answer because the concept which is discussed is importance of teaching with help of video and audio both. Cinema is just example which is taken. So, option (d) is not the right answer.

Solutions (89-90):

S89. Ans.(b)
Sol. From statement II:
The total number of persons is: 23+14 -1= 36

S90. Ans.(e)
Sol. By using statements I and II we can find M is the heaviest.
M > K > P > L > O > N

Solutions (91-95): From the given information, only three persons sit between P and R, P sits at one of the extreme ends. There are two possibilities. S sits third to the left of R and faces the same direction as R. S does not sit at an extreme end.
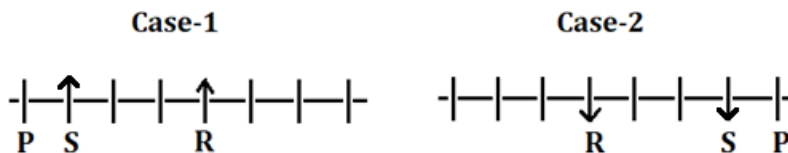
Case-1   Case-2

V sits second to the left of U, both are facing the opposite direction. The persons who sit at the extreme ends faces opposite direction. More than two persons sit between Q and U. Neither Q nor U is an immediate neighbor of R. T sits third to the left of W. T is not an immediate neighbor of V and faces south. W is facing the opposite direction of P and Q. Four of them are facing north while the rest are facing south direction. From these conditions, case-2 will be eliminated. The final arrangement is-
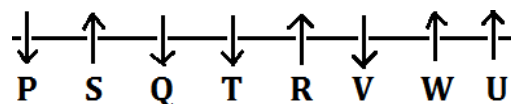
S91. Ans.(b)
S92. Ans.(b)
S93. Ans.(a)
S94. Ans.(a)
S95. Ans.(d)

Solutions (96-99):

S96. Ans.(a)
Sol. I. P5 > P2 (True) II. P6 > P3 (False)

S97. Ans.(e)
Sol. I. G < P (True)   II. G < J (True)

S98. Ans.(b)
Sol. I. E ≥ S (False)   II. S ≤ N (True)

S99. Ans.(d)
Sol. I. Y < M (False)   II. O > S (False)

S100. Ans.(a)
Sol. 6843275612

S101. Ans.(b)
Sol. Let approved male applications and approved female applications be 11x and 7x respectively

Given, 11x-7x =4x = 200

So, x = 50

And, 18x = 900.

So, P = $900 \times \dfrac{100}{60}$ = 1500

Required percentage = $\dfrac{1500-800}{800} \times 100 = 87.5\%$

S102. Ans.(a)
Sol. Let approved male applications and approved female applications be 43x and 17x respectively

Given, 43x – 17x = 234

x = 9

60x = 540

S = $540 \times \dfrac{100}{45}$ = 1200

Required sum = 1200 + 1400 + 1600 = 4200

S103. Ans.(c)
Sol Let approved male applications and approved female applications be 11x and 7x respectively

Given, 11x-7x = 4x = 100

So, x = 25

And, 18x = 450.

So, P = $450 \times \dfrac{100}{60}$ = 750

Cancel application in medical department = $1600 \times \dfrac{35}{100} = 560$

Required difference = 750 – 560 = 190

S104. Ans.(d)
Sol. Total approved application in vocational department = $800 \times \frac{40}{100} = 320$

Given, approved male applications is 40 more than approved female application
Let approved female application be 'x'
So, approved male application = x + 40
x + x + 40 = 320
x = 140
And (x + 40) = 180
Required ratio = 140 : 180 = 7 : 9

S105. Ans.(e)
Sol. Required ratio = $1600 \times \frac{35}{100} : 800 \times \frac{60}{100}$

= 560 : 480 = 7 : 6

S106. Ans.(a)
Sol. Let approved male applications and approved female applications be 29x and 21x respectively
29x – 21x = 112
x = 14
50x = 700
Q = 1400 – 700 = 700
Required sum = 700 + 1600 = 2300

S107. Ans.(c)
Sol. ATQ, $\frac{1}{30} + \frac{1}{X} - \frac{1}{60} = \frac{7}{180}$
On solving, $\frac{1}{X} = \frac{7}{180} - \frac{1}{60}$
X = 45 min
Required time = 45 ×3/5 = 27 minutes

S108. Ans.(e)
Sol. sodium remained after 48 lit mixture is taken out = $(232 - 48) \times \frac{3}{8} = 69 ltr$

Zinc remained after 48 lit mixture is taken out = $(232 - 48) \times \frac{5}{8} = 115 \ lit$

Required Ratio = (69+18) : (115 + 14) = 29:43

S109. Ans.(c)
Sol. Speed of train A = $\frac{(450+450\times3)}{36}$ = 50 m/s = 180 kmph
Length of train B = $54 \times \frac{5}{18} \times 50 = 750 \ m$
Required time = $\frac{450+750}{(180-54)\times\frac{5}{18}} = 34\frac{2}{7} \ sec$

S110. Ans.(a)
Sol. Ratio of profit share of Amit and Bunty = $(3200 \times 4 + 3200 \times \frac{9}{8} \times 8) : (4400 \times 4 + 4400 \times \frac{10}{11} \times 8)$

= 41600 : 49600

= 26 : 31

ATQ –

31 – 26 = 1750 Rs.

1 = 350 Rs.

So, profit share of Bunty = 10850

S111. Ans.(a)
Sol. Given, age of Sonali is 25% more than the age of Mitra, So ratio of age of Sonali to Mitra = 5 : 4

And, ratio of age of Sonali, Mitra and Sam be 5 : 4 : 9 respectively

So, let age of Sonali, Mitra and Sam present be 5x, 4x and 9x respectively

(Mitra +Sam) present age = 40×2−24 = 56 year

ATQ –

(9x + 5x) = 56

x = 4 years

Sonali age four years hence = $(5 \times 4 + 4)$ = 24 years

Sam age six years ago = $9 \times 4 - 6 = 30 \ years$

Required sum = 24 + 30 = 54 years

S112. Ans.(b)
Sol. let sum be Rs X

ATQ, $X \times 12 \times \frac{3}{100} - [X (1 + \frac{12}{100})^2 - X] = 4224$

X = Rs 40000

Required interest = $2 \times 40000 \times \frac{110}{100} \times \frac{110}{100} - 40000 = 16800$ Rs.

S113. Ans.(b)
Sol. Let length and breadth of rectangle be '6x' and '5x' respectively.

So, side of a square = (5x + 2) cm

ATQ,

$(5x +2)^2$ – 6x × 5x = 24

$25x^2 + 4 + 20x - 30x^2 - 24 = 0$

$-5x^2 + 20x - 20 = 0$

$x^2 - 4x + 4 = 0$

(x – 2) (x – 2) =0

x = 2

Side of a square = 5x + 2 = 12cm

Length of a rectangle = 6x = 12cm

Breadth of a rectangle = 5x = 10cm

Required Ratio = $\frac{12 \times 10}{(12)^2}$

$= \frac{120}{144}$

$= \frac{5}{6}$

= 5 : 6

S114. Ans.(b)

Sol. X invested = P Rs.

Y invested = (P – 4000)

2 year C. I. on 10% = $(10 + 10 + \frac{10 \times 10}{100}) = 21\%$

2 year C. I. on 12% = $(12 + 12 + \frac{12 \times 12}{100}) = 25.44$

ATQ—

$\frac{21P}{100} + \frac{25.44}{100}(P- 4000) = 6412.8$

21P + 25.44P – 101760 = 641280

46.44P = 743040

P = $\frac{743040}{46.44}$ = 16000 Rs.

Y capital = (16000 – 4000)

= 12000 Rs.

S115. Ans.(c)

Sol. Let present salary of Ankit and Pankaj are Rs120x and Rs100 x respectively

Previous year salary of Ankit= $\frac{120x}{4} \times 3$

= Rs 90x

Previous year salary of Pankaj= $\frac{100x}{5} \times 4$

= Rs80x

ATQ

$90x - 80x = 2000$

$10x = 2000$

So, $100x = Rs. 20000$

S116. Ans.(c)

Sol. Shopkeeper gives one article free at every 4 articles and gives 20% discount on one article it means he sold one article at 100% discount and remaining 4 articles at 20% discount each

So, effective discount percent on each article = $\frac{100 + 20 \times 4}{5} = 36\%$

Cost price of each article = $\frac{270}{100} \times \frac{64}{108} \times 100 = Rs. 160$

S117. Ans.(c)

Sol. Given the total number of Men is X

We know that$(M \times D \times H) = Work$

ATQ $(X \times 21 \times 8) = ((X - 1) \times 30 \times 6)$

We get $X = 15$.

S118. Ans.(c)
Sol. Pattern of series

$12 \times 0.5 + 1 = 7$

$7 \times 1 + 1.5 = 8.5$

$8.5 \times 1.5 + 2 = 14.75$

$? = 14.75 \times 2 + 2.5 = 32$

$32 \times 2.5 + 3 = 83$

S119. Ans.(a)
Sol. Pattern of series —

$12 \times 6 + 6 = 78$

$78 \times 5 + 5 = 395$

$395 \times 4 + 4 = 1584$

$1584 \times 3 + 3 = 4755$

$? = 4755 \times 2 + 2 = 9512$

S120. Ans.(e)
Sol. $26 \times 2 + 1 = 53$

$53 \times 4 + 2 = 214$

$214 \times 6 + 3 = 1287$

$1287 \times 8 + 4 = 10300$

$? = 10300 \times 10 + 5 = 103005$

S121. Ans.(d)
Sol. Pattern of series —

$4187 - (11^3 - 1) = 2857$

$2857 - (9^3 - 1) = 2129$

$2129 - (7^3 - 1) = 1787$

$1787 - (5^3 - 1) = 1663$

$? = 1663 - (3^3 - 1) = 1637$

S122. Ans.(e)
Sol. Pattern of series

$27 \div 1 = 27$

$27 \times 2 = 54$

$54 \div 3 = 18$

$18 \times 4 = 72$

$? = 72 \div 5 = 14.4$

S123. Ans.(e)
Sol. Let total professionals in society B = 100x
So, total professionals in society B = 140x
Total bankers in society A = $100x \times \frac{20}{100} = 20x$
Total bankers in society B = $140x \times \frac{25}{100} = 35x$
Total bankers in both society = 20x + 35x = 55x
Required percentage = $\frac{(20x+35x)}{(100x+140x)} \times 100 = 23\%$

S124. Ans.(c)
Sol. Let total employee in the society A = a
And, total employee in society B = b
ATQ –
$a \times \frac{15}{100} + b \times \frac{10}{100} = 108$
15a + 10b = 10800 -------------------- (i)
Also, $a \times \frac{30}{100} - b \times \frac{30}{100} = 36$
30a − 30b = 3600 -------------- (ii)
From (i) & (ii) we get
a = 480 , b = 360
Total lawyers in society A & society B = $480 \times \frac{25}{100} + 360 \times \frac{20}{100} = 120 + 72 = 192$

S125. Ans.(d)
Sol. Let total professional in society A = x
And, total professional in society B = y
$x \times \frac{10}{100} = \frac{800}{9} \times \frac{1}{100} \times y \times \frac{15}{100}$
90x = 120y
3x = 4y
$\frac{x}{y} = \frac{4}{3}$
Let x and y = 4a and 3a
Total bankers in society B = $3a \times \frac{25}{100} = .75a$
Total bankers in society A = $4a \times \frac{20}{100} = .80a$
So, required % = $\frac{0.80a - 0.75a}{0.75a} \times 100 = 6\frac{2}{3}\%$

S126. Ans.(a)
Sol. Let total professional in society A = 8x
And, total professional in society B = 7x
$7x \times \frac{25}{100} - 8x \times \frac{10}{100} = 114$
1.75x – 0.80x = 114
0.95x = 114
x = 120
Total businessman in both societies = $8 \times 120 \times \frac{30}{100} + 7 \times 120 \times \frac{30}{100}$
= 288 + 252
= 540

S127. Ans.(b)

Sol. Let total professional in society A = 100x

And, total professional in society B = 120x

Total lawyer in society A = $100x \times \dfrac{25}{100} = 25x$

Total bankers in society B = $120x \times \dfrac{25}{100} = 30x$

Required ratio = $\dfrac{25x}{30x} = 5 : 6$

S128. Ans.(b)

Sol. Let four numbers are a, b, c, d

ATQ,

a + b + c + d = 256   ...(i)

And,

a +3 = 3b = c-3 = $\dfrac{d}{3}$ ...(ii)

By solving (i) & (ii)

a = 45, b = 16, c =51, d = 144

Required difference = 51 – 16 = 35

S129. Ans.(b)

Sol. Let the present age of A be 8x years

Then present age of B=3x years

ATQ

$\dfrac{8x-3}{3x-3} = \dfrac{3}{1}$

$x = 6$

Required difference = $8 \times 6 - 3 \times 6 = 30 \ years$

S130. Ans.(b)

Sol. Let radius & height of conical tent be 'r cm' & 'h cm' respectively.

So, radius of hemispherical bowl = r cm.

ATQ,

$\dfrac{\frac{1}{3}\pi r^2 h}{\frac{2}{3}\pi r^2} = \dfrac{8}{1}$

$\Rightarrow \dfrac{h}{3 \times 3} = \dfrac{8}{1}$

h = 72 cm

Now,

Radius of conical tent = $\sqrt{75^2 - 72^2}$

= $\sqrt{441}$ = 21 cm

Required area = $4 \times (21)^2$

= 1764 cm^2

S131. Ans.(d)
Sol. Let 'A' purchased each bed for Rs. 100x

So, cost price of a bed for 'A' = Rs. 100x

Now, cost price of a bed for 'B' = $100x \times \frac{160}{100}$ = Rs. 160x

And cost price of a bed for 'C' = $100x \times \frac{120}{100}$ = Rs. 120x

Now,

Cost price of a bed for 'D' = $\frac{80}{100} \left(\frac{160x + 120x}{2}\right) = \frac{8}{10} \times 140x$ = Rs. 112x

ATQ,

$112x \times \frac{75}{100} = 2100$

$84x = 2100$

$x = 25$

Hence, required difference = 112x – 100x = 12x = Rs. 300

S132. Ans.(d)
Sol. Let still water speed of boat be x km/hr and speed of current be y km/hr

ATQ—

$(x + y) = 2 (x - y)$

$x = 3y$

ATQ—

$\frac{96}{(3y+y)} + \frac{72}{(3y-y)} = 20$

$\frac{96+144}{4y} = 20$

$y = \frac{240}{80}$

y = 3km/hr

x = 3 × 3 = 9 km/hr

S133. Ans.(b)
Sol. Let the number of red and black colored balls be x and y respectively.

ATQ,

$\frac{^xC_2}{^{(9+x)}C_2} = \frac{1}{7}$

$\Rightarrow \frac{x \times (x-1)}{(9+x) \times (8+x)} = \frac{1}{7}$

$\Rightarrow x = 6$

Total number of balls=15

$\Rightarrow \frac{^yC_2}{^{15}C_2} = \frac{1}{7} \times \frac{100}{250}$

$\Rightarrow y=4$

Number of yellow colored ball=15-(6+4) = 5

S134. Ans.(a)
Sol. Let the total number of students in the university be x

Valid votes $= \frac{x \times 80}{100} - 120$

$= \frac{4x}{5} - 120$

ATQ,

$\frac{3x}{8} + (\frac{3x}{8} - 30) = \frac{4x}{5} - 120$

$\Rightarrow \frac{3x}{4} - 30 = \frac{4x}{5} - 120$

$x = 1800$

No. of students who do not cast their votes $= 1800 \times \frac{20}{100} = 360$

S135. Ans.(c)
Sol. Let the total distance be D km.

Reduced speed $= 80 \times \frac{87.5}{100} = 70 \ kmph$

ATQ

$\frac{120}{80} + \frac{D-120}{70} = 5.5$

$\frac{D-120}{70} = 4$

$D = 400 \ km$

Now,

Distance covered by him 2 hours $= 80 \times 2 = 160 \ km$

So, required time $= 2 + \frac{400-160}{70}$

$= 2 + \frac{24}{7} = \frac{38}{7} = 5\frac{3}{7} \ hours$

S136. Ans.(b)
Sol. Average no. of HP laptops sold on Wednesday, Thursday and Friday $= \frac{60+50+100}{3}$

$= \frac{210}{3} = 70$

Average no. of Dell laptops sold on Tuesday, Wednesday and Thursday $= \frac{120+40+80}{3}$

$= \frac{240}{3} = 80$

So, required difference $= 80 - 70 = 10$

S137. Ans.(e)
Sol. Let cost price of Dell laptop be Rs.5x.

Cot price of HP laptop $= 5x \times \frac{120}{100} = Rs. 6x$

Amount earned by Hemant on Wednesday $= 6x \times 60 + 5x \times 40 = 560x$

Amount earned by Hemant on Thursday $= 6x \times 50 + 5x \times 80 = 700x$

So, required % $= \frac{560x}{700x} \times 100$

$= 80\%$

S138. Ans.(b)

Sol. Total laptops sold on Tuesday = 90 + 120 = 210

Total laptops sold on Monday = 80 + 70 = 150

Required % = $\frac{60}{150} \times 100 = 40\%$

S139. Ans.(a)

Sol. Total Dell laptops sold from Monday to Friday = 70 + 120 + 40 + 80 + 90

= 400

So, total Dell laptops = $400 \times \frac{100}{80} \times \frac{100}{40}$

= 1250

S140. Ans.(e)

Sol. Total Apple laptops sold = $60 \times \frac{7}{4} + 50 \times \frac{3}{5} + 100 \times \frac{5}{4} = 105 + 30 + 125$

= 260

Solutions (141-145):

Total amount invested by all four initially = Rs. 5975 × 4 = Rs. 23,900

Let the amount invested by B & C initially be Rs. 10x & 9x respectively.

Amount invested by D initially = 10x × 1.25 = 12.5x

ATQ,

23900 = 5000 + 10x + 9x + 12.5x

⇒ x = 600

Amount invested by B initially = Rs. 6000

Amount invested by C initially = Rs. 5400

Amount invested by D initially = Rs. 7500

Period of investment for A = 12 months

Period of investment for B = $12 \times \frac{2}{3} = 8$ months

Let period of investment for C be x months.

Then, period of investment for D = (20 – x) months

ATQ,

A	:	B	:	C	:	D
5000×12	:	6000×8	:	5400×x	:	7500×(20 – x)
200	:	160	:	18x	:	(500 – 25x)

$$\frac{18x}{200 + 160 + 18x + (500 - 25x)} = \frac{18}{79}$$

$$\Rightarrow \frac{18x}{860 - 7x} = \frac{18}{79}$$

⇒ x = 10

S141. Ans.(a)
Sol. Required ratio $= \frac{10}{10} = 1 : 1$

S142. Ans.(d)
Sol. Required % $= \frac{(7500 - 5400)}{(7500 - 6000)} \times 100$
$= \frac{2100}{1500} \times 100$
$= 140\%$

S143. Ans.(c)
Sol.

A	:	B	:	C	:	D
5000×12	:	6000×8	:	5400×10	:	7500×10
20	:	16	:	18	:	25

Required difference $= \frac{15800 \times 5}{79}$
= Rs. 1000

S144. Ans.(a)
Sol.

A	:	B	:	C	:	D
5000×12	:	6000×8	:	5400×10	:	7500×10
20	:	16	:	18	:	25

Required % $= \frac{16}{20} \times 100 = 80\%$

S145. Ans.(e)
Sol. Required % $= \frac{(5400 + 7500)}{23900} \times 100$
$\approx 54\%$

S146. Ans.(c)
Sol.
$?^2 + 190.98 - 19.01 \times 6.97 = 316.99 \times 1.99$
$?^2 + 191 - 19 \times 7 \approx 317 \times 2$
$?^2 \approx 576$
$? \approx 24$

S147. Ans.(c)
Sol. $768.06 \div 11.97 \times \sqrt{256.05} - 58.05 = ?$
$768 \div 12 \times 16 - 58 \approx ?$
$? \approx \frac{768 \times 16}{12} - 58$
$? \approx 966$

S148. Ans.(e)

Sol. 34.02% of 550.09 ÷ ? = 297.07 ÷ $\sqrt{728.95}$

$$\frac{34 \times 550}{100} \div ? \approx 297 \div \sqrt{729}$$

$$\frac{187}{?} \approx \frac{297}{27}$$

? ≈ 17

S149. Ans.(a)

Sol. (? ÷ 9.97) × 12.08 ≈ 20.12% of 1319.97

$$(? \div 10) \times 12 \approx \frac{20 \times 1320}{100}$$

$? \approx \frac{264}{12} \times 10 \approx 220$

S150. Ans.(d)

Sol. ? % of 179.99 = $\sqrt{(24.02)^2 + (17.98)^2 + 60.01\% \ of \ 659.98}$

? % of 180 ≈ $\sqrt{(24)^2 + (18)^2 + 60\% \ of \ 660}$

$\frac{?}{100} \times 180 \approx \sqrt{576 + 324 + 396}$

$\frac{?}{100} \times 180 \approx \sqrt{1296}$

$? \approx \frac{36}{180} \times 100$

? ≈ 20